Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07,10,94 Test oil : ISO 4113

Combination No. : 0402746961

Injection pump

Pump designation : PES6P120A720RS7292

EP type number : 0412726897

Governor

Governer design. : RQV350...1150PA1104

: -2K

Governer no. : 0421815372

Cust. part No. : 0250741202

Customer-spec. information Customer : MB_NFZ Motor : 0M366LA

Power KW : 142.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413047

Inlet press. bar : Tolerance bar : +-0.1

Tolerance l/h: + 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar 208.5 Tolerance bar : **←** 1.5

Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.00 : + 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 1-5-3-6-2-: 4 Firing order

: -300

Phasing : 0-60-120-180-240

Tolerance : ← 0.30

Check

tolerance °NW : \leftarrow 0.75

BEGINNING OF DELIVERY DIFFERENCE

°NW after s.o.d. : 3.0 S.o.d. blocking

Barrel no.

"NW after s.o.d. : 3.0

BASIC SETTING

Rated speed rpm : 1150

	*******************************		+ guide sleeve
Rack travel in mm Tolerance mm	: 14.50 : + 0.05		travel mm : 1.96 Tolerance mm : + 0.25
Del. quantity			Rated speed rpm : 417 guide sleeve
cm3/1000 strokes Tolerance	: 280.0		travel mm : 2.46 Tolerance mm : +- 0.25
cm3/1000 strokes	: + 1.0		Rated speed rpm : 510
Check tolerance cm3/1000s.	: + 4.0		travel mm : 3.11 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0		Rated speed rpm : 1480 guide steeve travel mm : 13.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 9.0		
2nd speed rpm	: 350		GUIDE SLEEVE POSITION
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: ← 0.30		control lever position degree : - 1 Rated speed rpm : 1315
Tolerance			Rack travel in mm: 13.50 Tolerance mm: + 2.50
Check tolerance	_		1
cm3/1000s. Spreed	: +- 6.0		FILL LOAD DELTVERY AT EILL LOAD STOP
Spreed Tolerance cm3/1000 strokes			FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150
Spreed Tolerance			Rated speed rpm : 1150 Aneroid pressure hPa : 1500
Spreed Tolerance cm3/1000 strokes Check tolerance	: 8.0 : 12.0		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S. (B) SETTING OF INJ	: 8.0 : 12.0 ECTION PUMP		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve	: 8.0 : 12.0 ECTION PUMP L : 350		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm	: 8.0 : 12.0 ECTION PUMP		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 8.0 : 12.0 ECTION PUMP L : 350 : 1.84 : + 0.25 : 1208		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm guide sleeve travel mm	: 8.0 : 12.0 ECTION PUMP L : 350 : 1.84 : + 0.25		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 8.0 : 12.0 ECTION PUMP : 350 : 1.84 : + 0.25 : 1208 : 9.41 : + 0.25 : 836		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 RATED SPEED
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INJ WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 8.0 : 12.0 ECTION PUMP L : 350 : 1.84 : + 0.25 : 1208 : 9.41 : + 0.25		Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity cm3/1000 strokes : 280.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0 RATED SPEED control lever position degree : 108.0

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 1320 : + 15 : 0.70 : + 0.70	Pressure hPa Rated speed rpm rack travel mm Tolerance mm Rated speed rpm Pressure hPa	: 11.30 : +- 0.15 : 1150
LOW IDLE		rack travel mm Tolerance mm	: 13.70
control lever position degree tolerance degree		Pressure hPa rack travel mm Tolerance mm	: 12.00
_		START CUT-OUT	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.00 : ← 0.10	Rated speed rpm Check speed 1/min	
Rated speed rpm	: 250	Speed 17 iii 11	. \ 270
CRT mm min.		FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 400	Aneroid pressure	: 1500
TORQUE CONTROL		+ Rated speed rpm + Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 14.50 : + 0.05	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: + 2.0
Rated speed rpm rack travel mm Tolerance mm	: 950 : 14.45 : +- 0.10	† cm3/1000 strokes	
Rated speed rpm rack travel mm Tolerance mm	: 13.70	Check tolerance cm3/1000s. Aneroid pressure	: 12.0
Rated speed rpm rack travel mm Tolerance mm	: 600 · · · · · · · · · · · · · · · · · ·	hPa Rated speed rpm Del. quantity cm3/1000 strokes	
		Tolerance cm3/1000 strokes	: +- 3.0
ANEROID/ALTITUDE COMPENSATOR TEST	- -	Check tolerance cm3/1000S.	
SETTING	-	Aneroid pressure hPa Rated speed rpm	: - : 500
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1500 - : 14.50 -	Del. quantity cm3/1000 strokes Tolerance	: 165.0
	. ·- رن.ن -· ·	cm3/1000 strokes Check tolerance cm3/1000s.	: +- 1.0
MEASUREMENT	4	- cm3/1000s.	: +- 4.0

A03

BREAKAWAY

Rack travel in mm: 13.50 1195 Rated speed rpm 5 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 14.50 rack travel mm Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s.: + 19.0

LOW IDLE

Rated speed rpm 350 7.30 rack travel mm Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 8.0

Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.10.94 Test oil : ISO 4113

Combination No. : 0402746962

Injection pump

Pump designation : PES6P120A720RS7292

EP type number : 0412726897

Governor

Governer design. : RQV350...1150PA1104

: -3K

Governer no. : 0421815373

Cust. part No. : 0250741102

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA Power KW : 127.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413047

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. l/h 100 Tolerance L/h : **←** 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar 208.5 Tolerance bar : +- 1.5 Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : + 1.0

Prestroke mm : 4.00 Tolerance mm : +- 0.05

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 1-5-3-6-2-: 4 Firing order

Phasing : 0-60-120-180-240

: -300

: + - 0.30Tolerance

Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

°NW after s.o.d. : 3.0

S.o.d. blocking Barrel no.

1

°NW after s.o.d. : 3.0

BASIC SETTING

Rated speed rpm	: 1150	Rated speed rpm : 367 guide sleeve
Rack travel in m Tolerance mm		travel mm : 1.96 Tolerance mm : + 0.25
Del. quantity cm3/1000 strokes	: 272.0	+ Rated speed rpm : 417 + guide sleeve + travel mm : 2.46
Tolerance cm3/1000 strokes	: + 1.0	Tolerance mm : + 0.25 Rated speed rpm : 510
Check tolerance cm3/1000s.	: + 4.0	guide sleeve : 3.11 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes Check tolerance	: 5.0	Rated speed rpm : 1480 guide sleeve travel mm : 13.50 Tolerance mm : +- 0.50
cm3/1000s.	: 9.0	CHIDE SLEEVE POSITION
2nd speed rpm	: 350	GUIDE SLEEVE POSITION
Rack travel in mr Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: +- 0.30	control lever position degree : -1 Rated speed rpm : 1310
cm3/1000 strokes Check tolerance cm3/1000s.	· -	+ Rack travel in mm : 12.50 + Tolerance mm : + 2.50
Spreed Tolerance	. +- 0.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0 : 12.0	Rated speed rpm : 1150 Aneroid pressure hPa : 1500 Del. quantity
(B) SETTING OF IN WITH GOVERNOR	WECTION PUMP	- cm3/1000 strokes : 272.0 - Tolerance - cm3/1000 strokes : + 1.0 - Check tolerance
GUIDE SLEEVE TRAV	/EL	+ cm3/1000s. : +- 4.0 + Spreed
Rated speed rpm guide sleeve	: 350	+ Tolerance + cm3/1000 strokes : 5.0 + Check tolerance
travel mm Tolerance mm	: 1.84 : + 0.25	cm3/1000s. : 9.0
Rated speed rpm guide sleeve	: 1208	RATED SPEED
travel mm Tolerance mm	: 9.41 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 836	position degree : 109.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 5.58 : ← 0.25	rack travel mm : 12.50 Rated speed rpm : 1195
10/		

Tolerance 1/min	: +- 5	<u> </u>		
	_	1	MEASUREMENT	
rack travel mm Rated speed rom	: 4.00 : 1310	1	Pressure hPa	
Rated speed rpm Tolerance 1/min	: +- 15	I	Rated speed rpm	1150
		+	rack travel mm Tolerance mm	: 10.80
rack travel mm Tolerance mm	: 0.70	†	Tolerance mm	: +- 0.15
Rated speed rpm	: 1400	I	Rated speed rpm	• 1150
		+	•	
LOW IDLE			Pressure hPa	: 650
FOM IDEE		I	rack travel mm Tolerance mm	: 12.90 · + 0.05
		+		
control lever	. (2.0	+	Pressure hPa rack travel mm	: 250
position degree tolerance degree	· + 4 0	İ	rack travel mm Tolerance mm	: 11.40
toter wite degree	• • •••	Į	roter arite min	. — 0.10
Testing:		+		
Rated speed rpm	• 350	†	START CUT-OUT	
rack travel mm	: 5.00	I	Rated speed rpm	: < 270
rack travel mm Tolerance mm	: + 0.10	+	Check	
Dated aread man	. 250	+	speed 1/min	: < 290
Rated speed rpm	: 250	1	-	
CRT mm min.	: > 6.50	1	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	: 400	+	Aneroid pressure	
		+	hPa	: 1500
TORQUE CONTROL			Rated speed rpm Del. quantity	
		4	cm3/1000 strokes	: 269.0
Rated speed rpm rack travel mm Tolerance mm	: 1150_	+	Tolerance	
rack travel mm	: 13.50 : + 0.05	+	cm3/1000 strokes	: +- 2.0
roterance min	. — 0.05	1	Check tolerance cm3/1000S.	: ← 5.0
Rated speed rpm	: 950	+	Spreed	5.0
rack travel mm	: 13.45	+	Tolerance	
Tolerance mm	: ← 0.10	†	cm3/1000 strokes	: 8.0
Rated speed rpm	: 750	I	Check tolerance cm3/1000S.	: 12.0
rack travel mm	: 12.80	+		· (C.U
Tolerance mm	: ← 0.10	+	Aneroid pressure	4506
Rated speed rpm	: 600	†	hPa	: 1500
rack travel mm		I	Rated speed rpm Del. quantity	: 600
Tolerance mm	: +- 0.10	+	cm3/1000 strokes	: 274.0
		+	Tolerance	
ANEROID/ALTITUDE		+	cm3/1000 strokes	: + 3.0
COMPENSATOR TEST		I	Check tolerance cm3/1000S.	: +- 6.0
		+		• • •••
SETTING		+	Aneroid pressure	
SETTING		1	hPa Rated speed rpm	: - : 500
Rated speed rpm	: 1150	Į	Del. quantity	•)00
Pressure hPa	: 1500	+	cm3/1000 strokes	: 184.0
rack travel mm		+	Tolerance	4.5
Tolerance mm	: +- 0.05	+	cm3/1000 strokes	: +- 1.0

Check tolerance : + 4.0 cm3/1000s.BREAKAWAY Rack travel in mm : 12.50
Rated speed rpm : 1195
Tolerance 1/min : +- 5 STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 13.50 : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 15.0Check tolerance cm3/1000s. : + 19.0 LOW IDLE Rated speed rpm 350 rack travel mm 7.30 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.10.94 Test oil : ISO 4113

Combination No. : 0402846061

Injection pump

Pump designation : PE6P120A320RS8024-1

EP type number : 0412826029

Governor

Governer design. : RQV250...1100PA1072

: -3K

Governer no. : 0421815979

Cust. part No. : 477950-P03

Customer-spec. information

Customer : VOLVO-TRUCK
Motor : TD74 FU

Motor : TD74 EU Power KW : 169.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2417413089

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1680750008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.60 Tolerance mm : + 0.05

Rack travel in mm: 7.20 Tolerance mm: + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.50

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.40 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 175.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 4.0	Rack travel in mm : 7.50 Tolerance mm : +- 2.50
Tolerance cm3/1000 strokes : 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100
Check tolerance cm3/1000s. : 11.0	Aneroid pressure hPa : 1500 Del. quantity
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ cm3/1000 strokes : 175.0 + Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : +- 4.0 + Spreed + Tolerance
Rated speed rpm : 250 guide sleeve	cm3/1000 strokes : 8.0 Check tolerance
travel mm : 1.33 Tolerance mm : + 0.25	+ cm3/1000s. : 11.0
Rated speed rpm : 1176 guide sleeve	RATED SPEED
travel mm : 10.15 Tolerance mm : + 0.25	+ control lever + position degree : 118.0
Rated speed rpm : 733 guide sleeve	tolerance degree : + 4.0
travel mm : 5.39 Tolerance mm : + 0.25	+ rack travel mm : 10.40 + Rated speed rpm : 1165 + Tolerance 1/min : ← 5
Rated speed rpm : 307 guide sleeve	rack travel mm : 4.00
travel mm : 2.29 Tolerance mm : + 0.25	Rated speed rpm : 1240 Tolerance 1/min : +- 15
Rated speed rpm : 357 guide sleeve travel mm : 2.97	rack travel mm : 0.50 Tolerance mm : +- 0.50
Tolerance mm : +- 0.25	Rated speed rpm : 1320
Rated speed rpm : 390 guide sleeve travel mm : 3.22	+ LOW IDLE
Tolerance mm : + 0.25	control lever position degree : 65.0
Rated speed rpm : 1390 guide sleeve	tolerance degree : +- 4.0
travel mm : 13.50 Tolerance mm : + 0.50	+ Testing: + Rated speed rpm : 300
GUIDE SLEEVE POSITION	rack travel mm : 4.40 Tolerance mm : + 0.30
control lever	Rated speed rpm : 200
position degree : - 1 Rated speed rpm : 1290	+ CRT mm min. : > 6.50

Rated speed rpm	: 375
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 650 : 9.10 : + 0.10
Rated speed rpm rack travel mm Tolerance mm	: 300 : 8.30 : ← 0.30
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1100 : 1500 : 11.40 : + 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 1100 : 7.20 : + 0.10
Rated speed rpm	: 1100
Pressure hPa rack travel mm Tolerance mm	: 580 : 3.50 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 120 : 0.25 : ← 0.05
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1500 : 650
Del. quantity cm3/1000 strokes	
Tolerance cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000s. Spreed	: +- 5.0
Tolerance cm3/1000 strokes	: 10.0
Check tolerance cm3/1000s.	: 14.0

Aneroid pressure
hPa : Rated speed rpm : 650
Del. quantity
cm3/1000 strokes : 114.0
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0

BREAKAWAY

Rack travel in mm : 10.40
Rated speed rpm : 1165
Tolerance 1/min : + 5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.10.94 Test oil : ISO 4113

Combination No. : 0402846065

Injection pump

Pump designation : PE6P110A320RS8009-1

EP type number : 0412816011

Governor

Governer design. : RQV300...1050PA1183

Governer no. : 0421814111

Cust. part No. : 11030876

: -P03 V.9.94

Customer-spec. information

Customer

: VME : TD 73 KDE Motor

Power KW : 149.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 2417413078

Inlet press. bar : Tolerance bar

Test nozzle holde

assembly : 1688901101

Opening pressure

bar 208.5 Tolerance bar : **←** 1.5

Test lines : 1680750008

Outside diameter : 6.0

x inside diameter :

x length mm ;

REMARKS

(A) INJECTION PUMP SETTING VALUES

2.0 600

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 3.85 Tolerance mm : +- 0.05

test only : ← 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : **←** 0.30

Check tolerance °NW : + 0.50

BASIC SETTING

700 Rated speed rpm :

Rack travel in mm: 10.90 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 178.0

Tolerance cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. 3.0

Spreed Tolerance	‡	
cm3/1000 strokes	: 5.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	9.0	Rated speed rpm : 700 Aneroid pressure hPa : 1500
(B) SETTING OF INJE	ECTION PUMP	Del. quantity cm3/1000 strokes : 178.0 Tolerance
GUIDE SLEEVE TRAVEL		Check tolerance
	<u></u>	cm3/1000s. : +- 3.0 Spreed
guide sleeve travel mm	: 300 +	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Tolerance mm :	: + 0.25	cm3/1000s. : 9.0
guide sleeve travel mm	7.85	RATED SPEED
	804	control lever position degree : 44.0 tolerance degree : +- 4.0
travel mm :	5.19 + 0.25	control lever position degree : 111.0
guide sleeve	385	tolerance degree : +- 4.0
travel mm : Tolerance mm :	1.98 + 0.25	rack travel mm : 9.90 Rated speed rpm : 1095 Tolerance 1/min : +- 5
Rated speed rpm : guide sleeve travel mm :	2.45	rack travel mm : 4.00
_	+ 0.25	Rated speed rpm : 1170 Tolerance 1/min : +- 15
Rated speed rpm : guide sleeve travel mm : Tolerance mm :	530 3.11 + 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1300
• • • •	1400	LOW IDLE
	11.50 + 0.50	control lever position degree : 81.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITIO	ON Ţ	
control lever position degree :	-1	control lever position degree : 17.0 tolerance degree : +- 4.0
Rated speed rpm :	1200	Testing:
Rack travel in mm : Tolerance mm :		Rated speed rpm : 300 rack travel mm : 6.20 Tolerance mm : + 0.30

Rated speed rpm 200

CRT mm min. : > 7.60

Rated speed rpm 370

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1500 rack travel mm 10.90 Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa Rated speed rpm 500 rack travel mm 8.00 Tolerance mm 0.15

Rated speed rpm 500

Pressure hPa 650 2.40 rack travel mm Tolerance mm : +- 0.20

Pressure hPa 280 rack travel mm 0.25 Tolerance mm : **←** 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa

Rated speed rpm 700

Del. quantity cm3/1000 strokes :

117.0

Tolerance

cm3/1000 strokes 1.0

Check tolerance

cm3/1000s.4.0

BREAKAWAY

Rack travel in mm : 9.90 Rated speed rpm Tolerance 1/min

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.10.94 Test oil : ISO 4113

Combination No. : 0402944300

Injection pump

Pump designation : PES4P120A720RS8506

EP type number : 0412924201

Governor

Governer design. : RQV350...1150PA1117K

Governer no. : 0421815380

Cust. part No. : 0250741902

Customer-spec. information Customer : MB-NFZ Motor : OM364LA

Power KW : 104.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2417413082

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 85 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar Tolerance bar

Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.50 Tolerance mm : + 0.05

test only : **←** 0.10

Rack travel in mm: 20.50 Tolerance mm : + 0.50

Firing order : 1-3-4-2

Phasing : 0-90-180 Tolerance : +- 0.30 : 0-90-180-270

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

°NW after s.o.d. : 2.1

S.o.d. blocking Barrel no. 1

°NW after s.o.d. : 2.1

BASIC SETTING

Rated speed rpm : 1150

Rack travel in m Tolerance mm		<pre>+ guide steeve + travel mm : 1.85 + Tolerance mm : +- 0.25</pre>
Del. quantity cm3/1000 strokes	: 242.0	Rated speed rpm : 418 guide sleeve travel mm : 2.37
Tolerance cm3/1000 strokes	: + 1.0	+ Tolerance mm : +- 0.25
Check tolerance cm3/1000s.	: + 6.0	_ + Rated speed rpm : 520 + guide sleeve + travel mm : 3.18 - Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 8.0	Rated speed rpm : 1490 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s.	: 14.0	Tolerance mm : + 0.50
2nd speed rpm	: 350	GUIDE SLEEVE POSITION
Rack travel in m		+
Tolerance mm Del. quantity	: ← 0.30	+ control lever
cm3/1000 strokes Tolerance	: 15.0	+ position degree : -1 + Rated speed rpm : 1300
cm3/1000 strokes	: ← 3.0	Rack travel in mm : 12.50
Check tolerance cm3/1000S.	: 6.0	Tolerance mm : + 2.00
Spreed		
Tolerance		THE LOSS SELTHERY AT THE LOSS STOR
Tolerance cm3/1000 strokes	: 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance		+ Rated speed rpm : 1150
cm3/1000 strokes		Rated speed rpm : 1150 Aneroid pressure hPa : 1600
cm3/1000 strokes Check tolerance cm3/1000S.	: 14.0	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0
cm3/1000 strokes Check tolerance cm3/1000S.	: 14.0	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : +- 1.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR	: 14.0 NJECTION PUMP	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV	: 14.0 NJECTION PUMP	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm	: 14.0 NJECTION PUMP	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm	: 14.0 NJECTION PUMP VEL : 350 : 1.63	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve	: 14.0 NJECTION PUMP VEL : 350	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 14.0 NJECTION PUMP /EL : 350 : 1.63 : +- 0.15	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 14.0 NJECTION PUMP VEL : 350 : 1.63 : +- 0.15 : 1208	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 14.0 NJECTION PUMP /EL : 350 : 1.63 : +- 0.15	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	: 14.0 NJECTION PUMP /EL : 350 : 1.63 : +- 0.15 : 1208 : 9.38 : +- 0.20	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 RATED SPEED control lever position degree : 109.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 14.0 NJECTION PUMP /EL : 350 : 1.63 : +- 0.15 : 1208 : 9.38 : +- 0.20 : 837 : 5.57	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 14.0 NJECTION PUMP VEL : 350 : 1.63 : +- 0.15 : 1208 : 9.38 : +- 0.20 : 837	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 RATED SPEED control lever position degree : 109.0 tolerance degree : + 4.0 rack travel mm : 11.80
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN WITH GOVERNOR GUIDE SLEEVE TRAV Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 14.0 NJECTION PUMP /EL : 350 : 1.63 : +- 0.15 : 1208 : 9.38 : +- 0.20 : 837 : 5.57 : +- 0.25	Rated speed rpm : 1150 Aneroid pressure hPa : 1600 Del. quantity cm3/1000 strokes : 242.0 Tolerance cm3/1000strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 14.0 RATED SPEED control lever position degree : 109.0 tolerance degree : + 4.0

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm	: 1295 : +- 15 : 0.70	† † † †	SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 1150 : 1600 : 12.80 : +- 0.05
LOW IDLE			Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: – : 1150 : 9.60
control lever position degree tolerance degree	: 66.0 : + 4.0	‡	Tolerance mm Rated speed rpm	
Testing:		‡	Pressure hPa	: 750
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.00	Ţ	Pressure hPa rack travel mm Tolerance mm	: + 0.05
		‡	Pressure hPa rack travel mm	: 400 : 10.80
Rated speed rpm		‡	Tolerance mm	: ← 0.10
CRT mm min.		‡	START CUT-OUT	
Rated speed rpm	: 425	‡	Rated speed rpm	: < 270
TORQUE CONTROL		+	Check speed 1/min	
Rated speed rpm rack travel mm Tolerance mm	: 12.80	† †	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.80 : ← 0.05	† † †	Aneroid pressure hPa Rated speed rpm Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 12.80	† †	cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 3.0
Rated speed rpm rack travel mm Tolerance mm	: 750 : 12.30 : + 0.10	† †	cm3/1000S. Spreed Tolerance cm3/1000 strokes	: ← 9.0
Rated speed rpm rack travel mm Tolerance mm	: 600	†	Check tolerance cm3/1000s. Aneroid pressure	
Rated speed rpm rack travel mm Tolerance mm	• 500	 	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	
ANEROID/ALTITUDE			cm3/1000 strokes Check tolerance	
COMPENSATOR TEST		<u> </u>	cm3/1000s. Spreed	: +- 8.0

Tolerance cm3/1000 strokes : Check tolerance 8.0 cm3/1000s. 14.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 127.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 6.0 BREAKAWAY Rack travel in mm: 11.80 Rated speed rpm : Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 12.80 Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 145.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0 LOW IDLE Rated speed rpm 350 rack travel mm Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 15.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.10.94 Test oil : ISO 4113

Combination No. : 0402946301

Injection pump

Pump designation : PES6P120A720LS8503

EP type number : 0412926203

Governor

Governer design. : RQV300...950PA1084K

Governer no. : 0421815985

Cust. part No. : 0240749202

Customer-spec. information Customer : MB-NFZ Motor : 0M447 LA Power KW : 260.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2417413082

Inlet press. bar : 3.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 70
Tolerance l/h : +- 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar Tolerance bar : + 1.5

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x Length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 3.85
Tolerance mm : + 0.05

: **←** 0.10 test only

Rack travel in mm: 13.50 Tolerance mm : + 0.50

: 6-2-4-1-5-: 3 Firing order

Phasing : 0-60-120-180-240 : -300

: + 0.30 Tolerance

Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

BASIC SETTING

Rated speed rpm : 700

A19

Rack travel in mm Tolerance mm	: 4.00 : - 0.20
Del. quantity cm3/1000 strokes	: 40.0
Tolerance cm3/1000 strokes	: + 3.0
Check tolerance cm3/1000s.	: +- 6.0
Spreed	
Tolerance cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 9.0
Rated speed rpm	: 950
Rack travel in mm Tolerance mm	: 13.50 : + 0.05
Del. quantity cm3/1000 strokes	: 389.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: +- 6.0
Spreed Tolerance cm3/1000 strokes	: 10.0
Check tolerance cm3/1000s.	: 14.0
2nd speed rpm	: 300
Rack travel in mm Tolerance mm Del. quantity	: 5.20 : + 0.30
cm3/1000 strokes Tolerance	: 19.0
	: + 3.0
cm3/1000s. Spreed	: +- 6.0
	: 8.0
Check tolerance cm3/1000s.	: 14.0

(B)	SETTING	0ř	INJECTION	PUMP
WITH	1 GOVERNO)R		

GUIDE SLEEVE TRAVEL		
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300	
	: 1.69 : +- 0.20	
Rated speed rpm guide sleeve	: 1006	
travel mm Tolerance mm	: 7.42 : + 0.15	
Rated speed rpm guide sleeve	: 790	
travel mm Tolerance mm	: 4.79 : + 0.25	
Rated speed rpm guide sleeve	: 345	
travel mm Tolerance mm	: 2.33 : +- 0.25	
Rated speed rpm guide sleeve	: 395	
travel mm Tolerance mm	: 2.79 : +- 0.25	
Rated speed rpm guide sleeve	: 500	
travel mm Tolerance mm	: 3.17 : ← 0.25	
Rated speed rpm guide sleeve	: 1169	
travel mm Tolerance mm	: 12.00 : +- 0.25	
Rated speed rpm guide sleeve	: 1250	
travel mm Tolerance mm	: 13.50 : + 0.50	
GUIDE SLEEVE POSI	TION	
control lever position degree Rated speed rpm	: - 1 : 1160	

Rack travel in mm : 12.50Tolerance mm : +-2.50

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm Aneroid pressure	: 950	+	Tolerance mm	: +- 0.05
hPa Del. quantity cm3/1900 strokes	: 1200	Ī	Rated speed rpm rack travel mm Tolerance mm	: 850 : 12.70 : +- 0.10
Tolerance cm3/1000 strokes		+	Rated speed rpm	: 550
Check tolerance cm3/1000s. Spreed	: +- 6.0	‡	rack travel mm Tolerance mm	: 11.00 : +- 0.20
Tolerance cm3/1000 strokes Check tolerance	: 10.0	+	Rated speed rpm rack travel mm Tolerance mm	: 400 : 10.40
cm3/1000s.	: 14.0	Ī		
RATED SPEED		- <u>+</u>	Rated speed rpm rack travel mm Tolerance mm	: 10.75 : +- 0.15
control lever position degree tolerance degree		† † †	ANEROID/ALTITUDE COMPENSATOR TEST	
rack travel mm Rated speed rpm Tolerance 1/min	: 12.50 : 995	Ŧ	SETTING	
Tolerance 1/min rack travel mm Rated speed rpm	: 4.00	+	Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1200
Tolerance 1/min	: + 15	+	MEASUREMENT	: 0.05
rack travel mm Tolerance mm Rated speed rpm	: 0.75 : + 0.75 : 1250	‡	Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: – : 850 : 8.25
LOW IDLE		+	Pressure hPa	: +- 0.15 : -
control lever position degree tolerance degree		+	Rated speed rpm rack travel mm Tolerance mm	: 7.40
Testing:		+	Rated speed rpm	
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.00 : ← 0.10	+	Pressure hPa rack travel mm Tolerance mm	
Rated speed rpm		+ 1	Pressure hPa rack travel mm	: 10.75
CRT mm min.	: > 6.50		Tolerance mm	: +- 0.15
Rated speed rpm	: 370	Ī ;	START CUT-OUT	,
TORQUE CONTROL		+ (Rated speed rpm Check	
Rated speed rpm rack travel mm	: 950 : 13.50	‡ '	speed 1/min	: < 240

FUEL DELIVERY CHARACTERISTICS
Aneroid pressure hPa : 1200 Rated speed rpm : 850 Del. quantity cm3/1000 strokes : 374.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 7.0
Aneroid pressure hPa : 1200 Rated speed rpm : 550 Del. quantity cm3/1000 strokes : 360.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 8.0
Aneroid pressure hPa : 600 Rated speed rpm : 850 Del. quantity cm3/1000 strokes : 304.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 6.5
Aneroid pressure hPa : - Rated speed rpm : 850 Del. quantity cm3/1000 strokes : 207.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 6.0
BREAKAWAY
Rack travel in mm : 12.50 Rated speed rpm : 995 Tolerance 1/min : +- 5
STARTING FUEL DELIVERY
Rated speed rpm : 100 rack travel mm : 9.50 Tolerance mm : + 0.40

Del. quantity cm3/1000 strokes Tolerance	: 200.0	
cm3/1000 strokes Check tolerance	: +-	15.0
cm3/1000s.	: +-	19.0

LOW IDLE		
Rated speed rpm rack travel mm Tolerance mm Del. quantity	+-	300 5.20 0.30
cm3/1000 strokes Tolerance	:	19.0
cm3/1000 strokes Check tolerance	: +-	3.0
cm3/1000s. Spreed Tolerance	: +-	6.0
cm3/1000 strokes Check tolerance	:	8.0
cm3/1000s.	:	14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.10.94 Test oil : ISO 4113

Combination No. : 0403244034

Injection pump

Pump designation : PES4MW100/720RS1519

EP type number : 0413204018

Governor

Governer design. : RQV300...1300MW132

: -3

: 0420083296 Governer no.

Cust. part No. : 0240740702

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA

Power KW : 77.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar 208.5 Tolerance bar 1.5

Test Lines : 1680750089

Outside diameter : 8.0 x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : + 0.05Tolerance mm

test only : \leftarrow 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance °NW : + - 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 11.50 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. 3.0

Spreed Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000S.	: 6.0	+ Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance	: ← 2.0	control lever
cm3/1000s. Spreed	: +- 4.5	position degree : -1 Rated speed rpm : 1400
Tolerance cm3/1000 strokes Check tolerance	: 3.5	+ Rack travel in mm : 16.50 + Tolerance mm : +- 1.30
cm3/1000s.	: 5.5	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	Rated speed rpm : 1300 Aneroid pressure hPa : 700
GUIDE SLEEVE TRAV	/EL	+ Del. quantity + cm3/1000 strokes : 95.0 + Tolerance
Rated speed rpm guide sleeve		- cm3/1000 strokes : +- 1.0 - Check tolerance
travel mm Tolerance mm	: 0.91 : + 0.25	+ cm3/1000s. : + 3.0 + Spreed
Rated speed rpm guide sleeve	: 1345	+ Tolerance + cm3/1000 strokes : 3.5 + Check tolerance
travel mm Tolerance mm	: 7.64 : +- 0.25	cm3/1000s. : 6.0
Rated speed rpm guide sleeve	: 1140	RATED SPEED
travel mm Tolerance mm	: 5.88 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 629	+ position degree : 112.0 + tolerance degree : + 4.0
travel mm Tolerance mm	: 3.15 : + 0.25	rack travel mm : 10.50 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve		rack travel mm : 4.00
travel mm Tolerance mm	: 3.53 : + 0.25	Rated speed rpm : 1435 Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 800	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm Tolerance mm	: 4.00 : + 0.25	Rated speed rpm : 1550
Rated speed rpm guide sleeve	: 1596	LOW IDLE
travel mm Tolerance mm	: 12.00 : + 0.25	control lever
Rated speed rpm guide sleeve	: 1690	+ position degree : 70.0 + tolerance degree : + 4.0
travel mm	: 13.50	Testing:

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm CRT mm min. TORQUE CONTROL	: 4.00 : ← 0.10	Aneroid pressure hPa : 700 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 86.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.0 Spreed
Rated speed rpm rack travel mm Tolerance mm	: 11.50 : +- 0.05	Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0 Aneroid pressure
Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE	: 11.50	hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 66.0 Tolerance
COMPENSATOR TEST		cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 700 : 11.50	BREAKAWAY Rack travel in mm : 10.50 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 10.70	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity
Rated speed rpm	: 500	cm3/1000 strokes : 140.0 Tolerance
Pressure hPa rack travel mm Tolerance mm		cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000S. : +- 8.0
Pressure hPa rack travel mm Tolerance mm	: 250 : 11.00 : + 0.10	LOW IDLE
START CUT-OUT Rated speed rpm Check speed 1/min	: < 200 : < 220	Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5
FUEL DELIVERY CHAP	RACTERISTICS	Spreed Tolerance cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

: 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 10.10.94

Test oil

: ISO 4113

Combination No. : 0403244035

Injection pump

Pump designation : PES4MW100/720RS1519

: -3 EP type number

: 0413204018

Governor

Governer design. : RQV300...1300MW132

: -3

Governer no.

: 0420083296

Cust. part No. : 0240740802

Customer-spec. information

Customer

: MB-NFZ

Motor

: 0M364LA

Power KW

77.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

Overflow valve

: 1419992198

Inlet press. bar :

Test nozzle holde assembly

: 1688901101

Opening pressure

bar

208.5

Tolerance bar

1.5

Test lines

: 1680750089

Outside diameter :

8.0

x inside diameter: 3.0 x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar 1.0 : +--

Prestroke mm : +- 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm : 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm: 11.50 Tolerance mm

Del. quantity

: +- 0.05

cm3/1000 strokes :

95.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s.

: +-3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.	: 6.0	+ Tolerance mm : ← 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance	: + 2.0	control lever
cm3/1000s. Spreed	: +- 4.5	+ position degree : -1 + Rated speed rpm : 1400
Tolerance cm3/1000 strokes	: 3.5	Rack travel in mm : 16.50 Tolerance mm : +- 1.30
Check tolerance cm3/1000s.	: 5.5	İ
	· •	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	NUECTION PUMP	Rated speed rpm : 1300 Aneroid pressure
		+ hPa : 700 + Del. quantity
GUIDE SLEEVE TRAV		+ cm3/1000 strokes : 95.0 + Tolerance
Rated speed rpm guide sleeve		+ cm3/1000 strokes : +- 1.0 + Check tolerance
travel mm Tolerance mm	: 0.91 : +- 0.25	+ cm3/1000s. : + 3.0 + Spreed
		+ Tolerance
Rated speed rpm guide sleeve	: 1345	cm3/1000 strokes : 3.5 Check tolerance
travel mm Tolerance mm	: 7.64 : ← 0.25	cm3/1000s. : 6.0
Rated speed rpm		RATED SPEED
guide sleeve travel mm	: 5.88	+
Tolerance mm	: ← 0.25	control lever
Rated speed rpm guide sleeve	: 629	position degree : 112.0 tolerance degree : + 4.0
travel mm	: 3.15	rack travel mm : 10.50
Tolerance mm	: + 0.25	+ Rated speed rpm : 1345 + Tolerance 1/min : + 5
Rated speed rpm guide sleeve	: 679	+ rack travel mm : 4.00
travel mm	: 3.53	+ Rated speed rpm : 1435
Tolerance mm	: ← 0.25	Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 800	rack travel mm : 0.50 Tolerance mm : +- 0.50
travel mm	: 4.00	+ Rated speed rpm : 1550
Tolerance mm	: ← 0.25	<u> </u>
Rated speed rpm guide sleeve	: 1596	LOW IDLE
travel mm	: 12.00	+
Tolerance mm	: + 0.25	+ control lever + position degree : 70.0
Rated speed rpm guide sleeve	: 1690 .	tolerance degree : + 4.0
travel mm	: 13.50	+ Testing:

Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm min. : > 4.50 TORQUE CONTROL Rated speed rpm : 1300 rack travel mm : 11.50 Tolerance mm : + 0.05 Rated speed rpm : 750 rack travel mm : 11.50 Tolerance mm : + 0.10	Aneroid pressure hPa : 700 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 86.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 7.0 Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 66.0
ANEROID/ALTITUDE COMPENSATOR TEST	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0
Rated speed rpm : 500 Pressure hPa : 700 rack travel mm : 11.50 Tolerance mm : + 0.05 MEASUREMENT	BREAKAWAY Rack travel in mm : 10.50 Rated speed rpm : 1345 Tolerance 1/min : + 5
Pressure hPa : - Rated speed rpm : 500 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 500 Pressure hPa : 290 rack travel mm : 11.25 Tolerance mm : + 0.10 Pressure hPa : 250	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000S. : +- 8.0
rack travel mm : 11.00 Tolerance mm : +- 0.10	LOW IDLE
Rated speed rpm : < 200 Check speed 1/min : < 220 FUEL DELIVERY CHARACTERISTICS	Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

: 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 11.10.94 Test oil : ISO 4113

Combination No. : 0403244043

Injection pump

Pump designation : PES4MW100/720RS1519

EP type number : 0413204017

Governor

Governer design. : RQV300...1300MW132

: 0420083309 Governer no.

Cust. part No. : 0240744102

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA

Power KW : 103.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar 208.5 Tolerance bar 1.5

Test lines : 1680750089

Outside diameter : 8.0 BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.90 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. 4.0

Spreed Tolerance

cm3/1000 strokes :

4.0

B03

x length mm : 600

3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

x inside diameter :

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : **←** 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + - 0.50

Check

tolerance °NW : + 0.75

Check tolerance cm3/1000s.	: 7.5	Tolerance mm : ← 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance		control lever
cm3/1000s. Spreed		position degree : - 1 Rated speed rpm : 1510
Tolerance cm3/1000 strokes		Rack travel in mm : 16.50 Tolerance mm : +- 1.30
Check tolerance cm3/1000s.	: 5.5	1
		FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	NJECTION PUMP	Rated speed rpm : 1300 Aneroid pressure
		+ hPa : 1200
GUIDE SLEEVE TRAV	/E)	Del. quantity
GOIDE SEELVE TRAV	/EL	+ cm3/1000 strokes : 126.0 + Tolerance
Rated speed rpm	: 300	+ cm3/1000 strokes : + 1.0
guide sleeve	2 24	+ Check tolerance
travel mm Tolerance mm	: 0.91 : +- 0.25	+ cm3/1000s. : +- 4.0
TOTAL CENTRAL	0.2	+ Spreed + Tolerance
Rated speed rpm guide sleeve	: 1354	- cm3/1000 strokes : 4.0 - Check tolerance
travel mm	: 7.77	+ cm3/1000s. : 7.5
Tolerance mm	: +- 0.25	+
Rated speed rpm guide sleeve	: 1140	RATED SPEED
travel mm	: 5.88	Ţ
Tolerance mm	: ← 0.25	control lever position degree : 116.0
Rated speed rpm guide sleeve	: 629	tolerance degree : + 4.0
travel mm	: 3.15	rack travel mm : 12.90
Tolerance mm	: +- 0.25	+ Rated speed rpm : 1345
Rated speed rpm	: 679	Tolerance 1/min : + 5
guide sleeve travel mm	. 75	+ rack travel mm : 4.00
Tolerance mm	: 3.53 : + 0.25	+ Rated speed rpm : 1465 + Tolerance 1/min : +- 15
TO COT CO PICE THAN	0.2	+ Tolerance 1/min : + 15
Rated speed rpm	: 800	rack travel mm : 0.50
guide sleeve		+ Tolerance mm : + 0.50
travel mm Tolerance mm	: 4.00 : + 0.25	Rated speed rpm : 1550
rocci di icc iiiii	0.2	T
Rated speed rpm guide sleeve	: 1596	LOW IDLE
travel mm	: 12.00	+
Tolerance mm	: + 0.25	+ control lever
Datad amagal	. 1400	+ position degree : 71.0
Rated speed rpm guide sleeve	: 1690	tolerance degree : +- 4.0
travel mm	: 13.50	Testing:
	-	1

Rated speed rpm	: 300	†
rack travel mm Tolerance mm	: 3.90 : + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm		Aneroid pressure : 1200
CRT mm min.	: > 4.50	Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 124.0
TORQUE CONTROL		Tolerance + cm3/1000 strokes : + 2.0
Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.90 : ← 0.05	Check tolerance cm3/1000S. : +- 5.0 Spreed Tolerance
Rated speed rpm rack travel mm Tolerance mm	: 750 : 13.90	cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm rack travel mm Tolerance mm		Aneroid pressure hPa : 1200 Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 126.0
ANEROID/ALTITUDE COMPENSATOR TEST		Tolerance - cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0
SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 1200 : 13.90	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 500 : 11.10 : + 0.10	BREAKAWAY
Rated speed rpm Pressure hPa	: 500 : 600	Rack travel in mm : 12.90 Rated speed rpm : 1345 Tolerance 1/min : +- 5
rack travel mm Tolerance mm	: 13.10 : + 0.10	Toterance min : += 3
Pressure hPa rack travel mm Tolerance mm	: 350 : 11.60 : ← 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity
START CUT-OUT Rated speed rpm Check	: < 200	
speed 1/min	: < 220	+ cm3/1000s. : +- 8.0

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.10.94 Test oil : ISO 4113

Combination No. : 0403446287

Injection pump

Pump designation : PES6MW100/320RS1219

EP type number : 0413406209

Governor

Governer design. : RQV350...1100MW118

Governer no. : 0420083249

Cust. part No. :

Customer-spec. information

Customer : VME Motor : TD 61 GB

Power KW : 115.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : \leftarrow 2.0

Overflow valve : 1457413010

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0681343009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

test only : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance °NW : \leftarrow 0.75

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 11.70 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 113.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

/1000s. + 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

B07

+	Tolerance 1/min : +- 5
Check tolerance	
cm3/1000s. : 6.0	rack travel mm : 4.00
Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1215 Tolerance 1/min : +- 15
cm3/1000 strokes : 20.0	
Tolerance cm3/1000 strokes : +- 2.0	rack travel mm : 0.55 Tolerance mm : +- 0.45 Rated speed rpm : 1300
	Rated speed rpm : +- U.45
cm3/1000s. : $+$ 4.5	Nation Speed pill . 4500
Spreed	
cm3/1000 strokes : 3.5	LOW IDLE
Check tolerance	
cm3/1000s. : 5.0	control lever
†	position degree : 75.0
(B) SETTING OF INJECTION PUMP	tolerance degree : +- 4.0
WITH GOVERNOR	Testing:
+	Rated speed rpm : 350 rack travel mm : 5.70 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	rack travel mm : 5.70 Tolerance mm : +- 0.10
1	roterance mm : + U.10
· +	rack travel mm : 2.00
control lever	rack travel mm : 2.00 Rated speed rpm : 490 Tolerance 1/min : +- 30
position degree : -1 Rated speed rpm : 1200	Toterance T/min : +- 30
4	Rated speed rpm : 200
Rack travel in mm: 10.70 Tolerance mm: + 0.30	CDT
10 ceraince min . += 0.30	CRT mm min. :> 8.00
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 1100	Rated speed rom · 1100
Aneroid pressure +	Rated speed rpm : 1100 rack travel mm : 11.70 Tolerance mm : +- 0.05
hPa : 1000 + Del. quantity +	Tolerance mm : +- 0.05
cm3/1000 strokes : 113.0	Rated speed rpm : 700
Tolerance \downarrow	rack travel mm : 12.60
cm3/1000 strokes : + 1.0	rack travel mm : 12.60 Tolerance mm : + 0.10
Check tolerance cm3/1000s. : + 3.0	Pated speed now . 1010
Spreed	Rated speed rpm : 1010 rack travel mm : 12.00 Tolerance mm : ← 0.15
Tolerance	Tolerance mm : ← 0.15
cm3/1000 strokes : 3.5 Check tolerance	
cm3/1000s. : 6.0	Rated speed rpm : 970 rack travel mm : 12.30 Tolerance mm : +- 0.15
1	Tolerance mm : +- 0.15
DATED COEFA	
RATED SPEED	ANEROID/ALTITUDE
Į.	COMPENSATOR TEST
control lever	
position degree : 109.0 tolerance degree : + 4.0	CETTING
total unite degree 4.0	SETTING
rack travel mm : 10.70	Rated speed rpm : 700 Pressure hPa : 1000
Rated speed rpm : 1145	Pressure hPa : 1000

rack travel mm Tolerance mm	: 12.60 : ← 0.10
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	
Rated speed rpm	: 700
Pressure hPa rack travel mm Tolerance mm	: 780 : 12.25 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 250 : 10.25 : + 0.05
START CUT-OUT	
Rated speed rpm Check	: < 270
speed 1/min	: < 290
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Aneroid pressure hPa	: 124.0 : + 1.5 : + 4.0 : 3.5 : 7.0
Rated speed rpm Del. quantity	: 700
cm3/1000 strokes Tolerance	: 78.0
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: +- 3.0

Rated speed rpm : 1145
Tolerance 1/min : + 5

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.00
Tolerance mm : + 1.00
Del. quantity
cm3/1000 strokes : 130.0
Tolerance
cm3/1000 strokes : + 17.0
Check tolerance
cm3/1000s. : + 20.0

LOW IDLE

Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.0

Rack travel in mm: 10.70

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 28,10,94

Test oil

: ISO 4113

Combination No. : 0401646002

Injection pump

Pump designation : PES6R120/720LS1505

EP type number : 0411626004

Governor

Governer design. : RQV300...1100R3K

Governer no. : 0421415004

Cust. part No. : 51.11103-7234

Customer—spec. information

Customer : MAN

Motor

: D2866LE401

Power KW

: 440.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar : +-

Test nozzle holde

assembly

: 1688901105

Opening pressure

Tolerance bar

: +- 1.5

Lube oil

: 1409918004

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter:

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm

: 5.45

test only

: **←** 0.10

Rack travel in mm : 12.00 Tolerance mm : + 0.50

Firing order

: 6-2-4-1-5-

Phasing

: 0-60-120-180-240

Tolerance

: + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 15.30

Tolerance mm

: +- 0.05

Del. quantity

cm3/1000 strokes : 385.0

•		+ Tolerance mm : ← 0.25
Tolerance cm3/1000 strokes	: +- 1.0	Rated speed rpm : 510 guide sleeve
Check tolerance cm3/1000s.	: +- 4.0	travel mm : 4.02 Tolerance mm : +- 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1430 guide sleeve
Check tolerance	. 7.0	travel mm : 13.50 Tolerance mm : +- 0.50
cm3/1000s.	: 9.0	GUIDE SLEEVE POSITION
2nd speed rpm		‡
Rack travel in mm Tolerance mm Del. quantity	: + 0.20	 control lever position degree : - 1 Rated speed rpm : 1240
cm3/1000 strokes Tolerance	: 20.0	Book though in man and 70
cm3/1000 strokes	: 3.0	+ Rack travel in mm : 14.30 + Tolerance mm : +- 1.30
Check tolerance cm3/1000s.	: +- 6.0	†
Spreed	: ← 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: 8.0	+
Check tolerance	. 5.5	+ Rated speed rpm : 1100 + Aneroid pressure
cm3/1000s.	: 12.0	+ hPa : 2500 - Del. quantity
(B) SETTING OF IN.	ECTION PUMP	cm3/1000 strokes : 385.0 Tolerance
WITH GOVERNOR		+ cm3/1000 strokes : ← 1.0
· -		+ Check tolerance
GLIDE SLEEVE TRAVE		+ Check tolerance cm3/1000s. : +- 4.0
GUIDE SLEEVE TRAVE	EL	- cm3/1000s. : +- 4.0 - Spreed
Rated speed rpm	: 325	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0
	: 325	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0 - Check tolerance
Rated speed rpm guide sleeve		- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 325 : 2.12 : +- 0.25 : 1164	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0 - Check tolerance
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 325 : 2.12 : +- 0.25 : 1164 : 10.04	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0 - Check tolerance - cm3/1000s. : 9.0 - RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 325 : 2.12 : +- 0.25 : 1164	- cm3/1000s. : +- 4.0 - Spreed - Tolerance - cm3/1000 strokes : 5.0 - Check tolerance - cm3/1000s. : 9.0 - RATED SPEED - control lever
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	: 325 : 2.12 : +- 0.25 : 1164 : 10.04 : +- 0.25 : 826	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0 rack travel mm : 14.30
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 325 : 2.12 : ← 0.25 : 1164 : 10.04 : ← 0.25 : 826 : 6.86 : ← 0.25	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0 rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +- 8
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86 : + 0.25 : 338 : 2.28	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0 rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +- 8 rack travel mm : 4.00 Rated speed rpm : 1295
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86 : + 0.25 : 338	cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : + 4.0 rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : + 8 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86 : + 0.25 : 338 : 2.28	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0 rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +- 8 rack travel mm : 4.00 Rated speed rpm : 1295 Tolerance 1/min : +- 15 rack travel mm : 0.50
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	: 325 : 2.12 : + 0.25 : 1164 : 10.04 : + 0.25 : 826 : 6.86 : + 0.25 : 338 : 2.28 : + 0.25	cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 122.0 tolerance degree : +- 4.0 rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +- 8 rack travel mm : 4.00 Rated speed rpm : 1295 Tolerance 1/min : +- 15

LOW IDLE

control lever

position degree : 76.0 tolerance degree : +-

Testing:

Rated speed rpm : 325 5.30 rack travel mm Tolerance mm : + 0.10

Rated speed rpm 225

CRT mm min. : > 7.00

Rated speed rom 350 :

TORQUE CONTROL

Rated speed rom 1100 rack travel mm : 15.30 : + 0.05Tolerance mm

Rated speed rpm 900 rack travel mm : 13.90 Tolerance mm : + 0.10

Rated speed rpm : 700 rack travel mm : 12.60 : + 0.10 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 1100 Pressure hPa 2500 rack travel mm 15.30 Tolerance mm : + 0.05

MEASUREMENT

Pressure hPa 300 Rated speed rpm 1100 rack travel mm 8.60 Tolerance mm : +- 0.05

Rated speed rpm : 1100

Pressure hPa 1400 rack travel mm 13.60 Tolerance mm : **←** 0.15

START CUT-OUT

Rated speed rpm :> 260 Check speed 1/min 280 : >

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

2500 900 Rated speed rpm Del. quantity

cm3/1000 strokes : 352.0

Tolerance

cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +- 6.0

Aneroid pressure

2500 Rated speed rpm 700 Del. quantity cm3/1000 strokes :

329.0

Tolerance

cm3/1000 strokes : +-3.0

Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 187.0

Tolerance

cm3/1000 strokes : +- 1.0 Check tolerance

cm3/1000s. : +-4.0

BREAKAWAY

Rack travel in mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm 17.00 Del. quantity cm3/1000 strokes : 555.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance cm3/1000s. : \leftarrow 14.0

LOW IDLE

325 5.30 0.20 Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.10.94 : ISO 4113 Test oil

Combination No. : 0401646003

Injection pump

Pump designation : PES6R120/720LS1505

: -1

EP type number : 0411626005

Governor

Governer design. : RQV300...1100R3K

Governer no. : 0421415004

Cust. part No. : 51.11103-7393

Customer-spec. information

Customer : MAN

: D2866LE401 : 440.0 Motor Power KW

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901105

Opening pressure

bar 208.5 Tolerance bar : + 1.5

Lube oil : 1409918004

Test Lines : 1680750089 Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm : 12.00 Tolerance mm : + 0.50

: _6- 2- 4- 1- 5-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 15.30

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 385.0	travel mm : 2.90 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 510 guide sleeve
Check tolerance cm3/1000s.	: + 4.0	travel mm : 4.02 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1430 guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 9.0	GUIDE SLEEVE POSITION
2nd speed rpm	: 325	T GOIDE SLEEVE FOSTITON
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: + 0.20	control lever position degree : - 1 Rated speed rpm : 1240 Rack travel in mm : 14.30
cm3/1000 strokes Check tolerance		Tolerance mm : + 1.30
cm3/1000S. Spreed Tolerance	: ← 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance		Rated speed rpm : 1100 Aneroid pressure
cm3/1000S. (B) SETTING OF INJ		hPa : 2500 Del. quantity cm3/1000 strokes : 385.0 Tolerance
WITH GOVERNOR		cm3/1000 strokes : + 1.0 Check tolerance
GUIDE SLEEVE TRAVE	L	- cm3/1000s. : +- 4.0 - Spreed - Tolerance
Rated speed rpm guide sleeve travel mm Tolerance mm	: 325 : 2.12 : + 0.25	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm guide sleeve	: 1164	RATED SPEED
travel mm	: 10.04 : ← 0.25	control lever
guide sleeve	: 826	position degree : 122.0 tolerance degree : +- 4.0
travel mm : Tolerance mm :	: 6.86 : +- 0.25	rack travel mm : 14.30 Rated speed rpm : 1152 Tolerance 1/min : +- 8
guide sleeve travel mm	: 338 : 2.28	rack travel mm : 4.00 Rated speed rpm : 1295
	: +- 0.25	Tolerance 1/min : + 15
Rated speed rpm :	: 388	+ rack travel mm : 0.50

Tolerance mm Rated speed rpm	: +- 0.50 : 1425	ŧ	Tolerance mm	: + 0.05
LOW IDLE		<u> </u>	START CUT-OUT	
		\pm	Rated speed rpm Check	: > 260
control lever position degree tolerance degree	: 76.0 : ← 4.0	Į Į	speed 1/min	: > 280
Testing:		‡	FUEL DELIVERY CH	ARACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 5 .30	+	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 2500 : 900
Rated speed rpm	: 225	‡	Tolerance	
CRT mm min.	: > 7.00	‡	cm3/1000 strokes Check tolerance	: ← 3.0
Rated speed rpm	: 350	‡	cm3/1000s.	: +- 6.0
TORQUE CONTROL		 ‡	Aneroid pressure hPa Rated speed rpm	: 2500
	. 1100	Ŧ	Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 15.30	‡	cm3/1000 strokes Tolerance cm3/1000 strokes	
Rated speed rpm rack travel mm	: 13.90	†	Check tolerance cm3/1000s.	: ← 6.0
Tolerance mm	: ← 0.10	†	Aneroid pressure hPa	: -
Rated speed rpm rack travel mm Tolerance mm	: 12.60	‡	Rated speed rpm Del. quantity cm3/1000 strokes	
		-	Tolerance	
ANEROID/ALTITUDE COMPENSATOR TEST			cm3/1000 strokes Check tolerance cm3/1000s.	: +- 1.0 : +- 4.0
SETTING		‡	BREAKAWAY	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 2500	+++++++++++++++++++++++++++++++++++++++	Rack travel in mm Rated speed rpm Tolerance 1/min	: 1152
MEASUREMENT		Ŧ		
Rated speed rpm	: 1100	†	STARTING FUEL DEL	IVERY
Pressure hPa rack travel mm Tolerance mm	: 1400 : 13.60 : + 0.15	Ī	Rated speed rpm rack travel mm Del. quantity	
Pressure hPa rack travel mm	: 300 : 8.60	‡	cm3/1000 strokes Tolerance cm3/1000 strokes	

Check tolerance cm3/1000s. : +- 14.0

LOW IDLE

325 5.30 0.20 Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s.6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28,10,94 : ISO 4113

Combination No. : 0402036744

Injection rump

Pump designation : PES6P120A720/3LS3255

EP type nurser : 0412026739

Governor

Governer design. : RQV300...1000PA876

: -12

Governer no.

: 0421813897

Cust. part No. : 3-7039

Customer-spec. information

Customer

: MAN

Motor

: D2866LF05

Power KW

: 272.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar: 1.5

Test nozzle holde

assembly

: 1688901019

Opening pressure

208.5

Tolerance bar

: **←** 1.5

Lube oil

: 1409918004

Test lines

: 1680750067

Outside diameter : 6.0

x inside diameter :

3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm

Tolerance mm

: + 0.05

test only

: **←** 0.10

Rack travel in mm: 15.00 Tolerance mm

: +- 0.50

Firing order

: 6-2-4-1-5-

Phasing

: 0-60-120-180-240

: -300

Tolerance

: + 0.30

Check

tolerance °NW

: + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm :

700

Del. quantity

cm3/1000 strokes :

50.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance +	Rated speed rpm : 1100
cm3/1000s. : + 6.0	nated speed (pii) : (100
	Rack travel in mm : 16.50
Spreed	Tolerance mm : + 1.30
	roter ance min 1.50
Tolerance	
cm3/1000 strokes : 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
5.3	LOTE TOWN DESTACKS AT LOTE FOUR 2106
Check tolerance	Pated aread are 700
cm3/1000s. : 8.0	Rated speed rpm : 700
CIID/ 10003 0.0	Aneroid pressure
Rated speed rpm : 700	hPa : 1200
nated speed (pill . 700	Del. quantity
	cm3/1000 strokes : 245.0
Rack travel in mm: 15.15	Tolerance
	cm3/1000 strokes : + 1.0
Tolerance mm : + 0.05	Check tolerance
Dal municipal de la companya de la c	cm3/1000s. : +- 4.0
Del. quantity	Spreed
cm3/1000 strokes : 245.0	Tolerance
	cm3/1000 strokes : 8.0
Tolerance	Check tolerance
cm3/1000 strokes : + 1.0 +	cm3/1000s. : 12.0
Check tolerance	
$cm3/1000s.$: \leftarrow 4.0	RATED SPEED
<u> </u>	
Spreed	
Tolerance	control lever
cm3/1000 strokes : 8.0 +	position degree : 302.0
<u> </u>	tolerance degree : +- 4.0
Check tolerance	•
cm3/1000s. : 12.0 +	rack travel mm : 14.10
+	Rated speed rpm : 1045
2nd speed rpm : 300 +	Tolerance 1/min : + 5
+	
Rack travel in mm: 5.00 +	rack travel mm : 4.00
Tolerance mm : \leftarrow 0.20 \downarrow	Rated speed rpm : 1165
Del. quantity	Tolerance 1/min : + 15
cm3/1000 strokes : 20.0	
Tolerance	rack travel mm : 0.50
cm3/1000 strokes : +- 3.0 +	Tolerance mm : + 0.50
Check tolerance	Rated speed rpm : 1300
cm3/1000s. : $+6.0$	THE SECOND SECON
Spreed	
Tolerance	LOW IDLE
cm3/1000 strokes : 8.0	COM IVEL
Check tolerance	
cm3/1000s. : 12.0	control lever
I	position degree : 258.0
\mathbf{I}	tolonomon dognon . L. / O
(B) SETTING OF INJECTION PUMP	tolerance degree : + 4.0
WITH GOVERNOR	Tashin
WITH GOVERNON	Testing:
†	Dated around new . 700
	Rated speed rpm : 300
CLITAE SLEEVE POSTITAL	rack travel mm : 5.00
GUIDE SLEEVE POSITION +	Tolerance mm : \leftarrow 0.10
†	Dated arrand arra
control lever	Rated speed rpm : 200
	ADT
position degree : -1	CRT mm min. : > 6.50

Rated speed rpm	: 340	+ Del. quantity + cm3/1000 strokes : 245.0 + Tolerance
TORQUE CONTROL		+ cm3/1000 strokes : + 2.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 15.15	cm3/1000s. : + 5.0 Aneroid pressure
		+ hPa : - + Rated speed rpm : 700
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 15.15 : +- 0.05	- Del. quantity - cm3/1000 strokes : 94.0 - Tolerance
Rated speed rpm	: 700	+ cm3/1000 strokes : + 5.0 + Check tolerance
Rated speed rpm rack travel mm Tolerance mm	8.00 : + 0.10	+ cm3/1000s. : +- 8.0 + Spreed + Tolerance
ANEROID/ALTITUDE		cm3/1000 strokes : 10.0
COMPENSATOR TEST		Aneroid pressure
CETTANO		hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 139.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
SETTING		+ Del. quantity + cm3/1000 strokes : 139.0
Rated speed rpm Pressure hPa	: 500 : 1200	+ Tolerance + cm3/1000 strokes : +- 1.0
rack travel mm	: 15.15	Check tolerance
Tolerance mm	: ← 0.05	+ cm3/1000s. : +- 4.0
MEASUREMENT		BREAKAWAY
Pressure hPa Rated speed rpm	: - : 500	
rack travel mm	: 12.10	Rack travel in mm: 14.10
Tolerance mm	: + 0.10	+ Rated speed rpm : 1045 + Tolerance 1/min : +- 5
Rated speed rpm	: 500	Total ance militimes.
Pressure hPa	: 470	
rack travel mm Tolerance mm	: 14.20 : + 0.20	+ STARTING FUEL DELIVERY
Pressure hPa	: 110	+ Rated speed rpm : 100 + Del. quantity
rack travel mm	: 12.35	+ cm3/1000 strokes : 220.0
Tolerance mm	: ← 0.05	+ Tolerance + cm3/1000 strokes : + 10.0
START CUT-OUT		+ Check tolerance
		+ cm3/1000s. : + 14.0
Rated speed rpm Check	: < 220	‡
speed 1/min	: < 240	LOW IDLE
DIEL DELTHERY CHE	DACTEDICTICS	+
FUEL DELIVERY CHA	JUNI IEKTO I TOO	+ Rated speed rpm : 300
		+ rack travel mm : 5.00
Aneroid pressure	: 1200	+ rack travel mm : 5.00 + Tolerance mm : + 0.20 + Del. quantity

B20

Tolerance cm3/1000 strokes Check tolerance	: +-	3.0
cm3/1000s.	: +-	6.0
Tolerance cm3/1000 strokes	:	8.0
Check tolerance cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28.10.94 : ISO 4113

Combination No. : 0402036757

Injection pump

Pump designation : PES6P120A720/3LS3255

: -3

EP type number

: 0412026774

Governor

Governer design. : RQV300...1000PA876

: -12

Governer no.

: 0421813897

Cust. part No. : 51.11103-7351

Customer-spec. information : MAN

Customer

Motor Power KW

: D2866LF05 : 272.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1688901019

Opening pressure

bar

Tolerance bar

208.5

Lube oil

: 1409918004

Test lines

: 1680750067

Outside diameter : 6.0

x inside diameter : 3 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

: 3.75 : ← 0.05 Prestroke mm

Tolerance mm

test only : +- 0.10

Rack travel in mm: 15.00

Tolerance mm : \leftarrow 0.50

: 6-2-4-1-5-: 3 Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm :

700

Del. quantity

cm3/1000 strokes :

50.0

B22

Tolerance		guide sleeve
cm3/1000 strokes	: ← 3.0 +	travel mm : 1.69
Check tolerance		Tolerance mm : +- 0.25
cm3/1000s.	: +- 6.0	Octob and and and
CID/ (DODS.	• • • • • • • • • • • • • • • • • • • •	Rated speed rpm : 1059
Spreed	I	guide sleeve travel mm : 10.13
	Į	Tolerance mm : + 0.25
Tolerance	4	rocci di lec min
cm3/1000 strokes	: 3.5 ↓	Rated speed rpm : 793
	+	guide sleeve
Check tolerance	+	travel mm : 6.88
cm3/1000s.	: 8.0	Tolerance mm : + 0.25
Rated speed rpm	: 700	Dated smood man . 210
nated speed (pill	· '& I	Rated speed rpm : 318 guide sleeve
		travel mm : 1.89
Rack travel in mm :	: 15.15	Tolerance mm : + 0.25
	: + 0.05	
	<u> </u>	Rated speed rpm : 368
Del. quantity		guide sleeve
cm3/1000 strokes	: 245.0 	travel mm : 2.47
Tolerance		Tolerance mm : + 0.25
cm3/1000 strokes :	: ← 1.0 ‡	Date day of 500
CIID/ 1000 SCI ORES .	• - 1.0	Rated speed rpm : 500
Check tolerance		guide sleeve travel mm : 3.63
	: +- 4.0 I	Tolerance mm : +- 0.25
	1.0	rocci di ce iliii
Spreed	+	Rated speed rpm : 1270
Tolerance	+	guide sleeve
cm3/1000 strokes :	: 8.0 +	travel mm : 13.50
Charle And anni	+	Tolerance mm : + 0.50
Check tolerance cm3/1000s. :	. 12.0	
cm3/1000\$.	12.0	CLIDE OF EDIE DOCTETON
2nd speed rpm :	: 300 I	GUIDE SLEEVE POSITION
Life opece (pii)	J I	
Rack travel in mm:	5.00	control lever
	+ 0.20	position degree : - 1
Del. quantity	+	Rated speed rpm : 1100
cm3/1000 strokes :	20.0	·
Tolerance	+	Rack travel in mm : 16.50
cm3/1000 strokes : Check tolerance	+- 3.0 +	Tolerance mm : +- 1.30
7/4000-	+ 6.0 [‡]	
Spreed .	· 5.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	I	TOTE FOUND DELIVERY AT FULL FOUND STOP
cm3/1000 strokes :	8.0	Rated speed rpm : 700
Check tolerance	<u>.</u>	Aneroid pressure
cm3/1000s. :	12.0	hPa : 1200
	+	Del. quantity
(D) CETTINO OF THE	+	cm3/1000 strokes : 245.0
(B) SETTING OF INJE	CLION PUMP +	Tolerance
WITH GOVERNOR	†	cm3/1000 strokes : + 1.0
		Check tolerance
GUIDE SLEEVE TRAVEL	<u> </u>	cm3/1000s. : +- 4.0 Spreed
	I	Tolerance
Rated speed rpm :	300	cm3/1000 strokes : 8.0
•	1	

Check tolerance cm3/1000s. : 12.0	+
	ANEROID/ALTITUDE COMPENSATOR TEST
RATED SPEED	TOTAL ENSATOR 7231
control lever	SETTING
position degree : 302.0 tolerance degree : +- 4.0	Rated speed rpm : 500 Pressure hPa : 1200
rack travel mm : 14.10 Rated speed rpm : 1045 Tolerance 1/min : +- 5	Pressure hPa : 1200 rack travel mm : 15.15 Tolerance mm : +- 0.05
Tolerance 1/min : +- 5	MEASUREMENT
rack travel mm : 4.00 Rated speed rpm : 1165 Tolerance 1/min : +- 15	Pressure hPa : - Rated speed rpm : 500 rack travel mm : 12.10 Tolerance mm : + 0.10
rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1300	Rated speed rpm : 500
LOW IDLE	Pressure hPa : 470 rack travel mm : 14.20 Tolerance mm : + 0.20
control lever position degree : 258.0 tolerance degree : +- 4.0	Pressure hPa : 110 rack travel mm : 12.35 Tolerance mm : + 0.05
Testing:	START CUT-OUT
Rated speed rpm : 300 rack travel mm : 5.00 Tolerance mm : + 0.10	Rated speed rpm : < 220 Check speed 1/min : < 240
Rated speed rpm : 200	Ţ
CRT mm min. : > 6.50	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 340	+ Aneroid pressure + hPa : 1200 + Rated speed rpm : 1000
TORQUE CONTROL	+ Del. quantity + cm3/1000 strokes : 245.0
Rated speed rpm : 700 rack travel mm : 15.15	+ Tolerance + cm3/1000 strokes : +- 2.0 + Check tolerance
Tolerance mm : + 0.05	cm3/1000s. : + 5.0
Rated speed rpm : 1000 rack travel mm : 15.15 Tolerance mm : + 0.05	Aneroid pressure hPa : - Rated speed rpm : 700
Rated speed rpm : 700	+ Del. quantity + cm3/1000 strokes : 94.0
rack travel mm : 8.00 Tolerance mm : + 0.10	<pre>+ Tolerance - cm3/1000 strokes : +- 5.0 - Check tolerance</pre>
	cm3/1000s. : + 8.0 Spreed

Tolerance 10.0 cm3/1000 strokes : Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 139.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 **BREAKAWAY** 14.10 Rack travel in mm : Rated speed rpm : 1045 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 220.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE 300 Rated speed rpm rack travel mm 5.00 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance 8.0 cm3/1000 strokes : Check tolerance 12.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02.11.94 : ISO 4113

Combination No. : 0402646640

Injection pump

Pump designation : PE6P120A320RS7311

: -10

EP type number : 0412626932

Governor

Governer design. : RQV275...1150PA1110K

Governer no.

: 0421815375

Cust. part No. : 1280143/7

Customer-spec. information Customer : DAF

Motor

: RS 222 M

Power KW

: 222.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

208.5

Tolerance bar

: **←** 1.5

Lube oil

: 1409918004

Test lines

: 1680750089

B26

Outside diameter : 8.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : +- 0.05 Tolerance mm

test only : \leftarrow 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance

: **←** 0.30

Check

tolerance °NW

: +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 1130

Rack travel in mm: 13.55

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes	: 218.0	+ guide sleeve + travel mm : 2.90 + Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: : +- 1.0	+ Rated speed rpm : 460
Check tolerance cm3/1000s.	: +- 4.0	+ guide sleeve + travel mm : 3.90 + Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1480 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s.	: 9.0	Tolerance mm : + 0.50
2nd speed rpm	: 275	GUIDE SLEEVE POSITION
Rack travel in m Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 0.10 : 16.0	control lever position degree : - 1 Rated speed rpm : 1280 Rack travel in mm : 12.80 Tolerance mm : +- 1.30
cm3/1000s. Spreed Tolerance	: +- 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance cm3/1000s.	_	Rated speed rpm : 1130 Aneroid pressure hPa : -
(B) SETTING OF IN WITH GOVERNOR		Del. quantity cm3/1000 strokes : 218.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance
GUIDE SLEEVE TRAV	/EL	cm3/1000s. : + 4.0 Spreed
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1.56	Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000S. : 9.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 10.07	RATED SPEED control lever
Rated speed rpm guide sleeve travel mm	: 814 : 6.79	position degree : 121.0 tolerance degree : + 4.0
Tolerance mm	: ← 0.25	<pre>+ rack travel mm : 12.55 + Rated speed rpm : 1192 + Tolerance 1/min : +- 5</pre>
Rated speed rpm guide sleeve travel mm Tolerance mm	: 2.13	rack travel mm : 4.00 Rated speed rpm : 1315 Tolerance 1/min : + 15
Rated speed rpm	: 350	rack travel mm : 0.70

Tolerance mm Rated speed rpm	: ← 0.70 : 1450	‡	MEASUREMENT	
LOW IDLE		‡	rack travel mm	: - : 1130 : 9.40 : +- 0.10
control lever position degree tolerance degree	: 69.0 : + 4.0	‡ ‡	Rated speed rpm	: 1130 : 580
Testing:		‡	rack travel mm Tolerance mm	: 12.40 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 275 : 3.80 : + 0.10	Ŧ	rack travel mm	: 320 : 10.60 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 330	Ţ	FUEL DELIVERY CHAR	ACTERISTICS
Rated speed rpm		+	Aneroid pressure	NOTENIES ICS
CRT mm min.	: > 6.00	† †	hPa Rated speed rpm Del. quantity	850
TORQUE CONTROL		 ‡	cm3/1000 strokes Tolerance	
Rated speed rpm rack travel mm Tolerance mm	: 1130 : 13.55 : +- 0.05	† + +	cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: + 2.0 : + 5.0
Rated speed rpm rack travel mm Tolerance mm	: 12.80	† + +	Tolerance cm3/1000 strokes : Check tolerance cm3/1000s.	: 8.0 : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 775 : 12.45 : + 0.10	‡	Aneroid pressure hPa : Rated speed rpm :	600
Rated speed rpm rack travel mm Tolerance mm	: 650 : 12.20 : + 0.10	† † †	Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes :	146.5 + 1.0
Rated speed rpm rack travel mm Tolerance mm	: 12.10	‡ ‡		+ 4.0
ANEROID/ALTITUDE COMPENSATOR TEST		+ + + + + + + + + + + + + + + + + + +	Rack travet in mm : Rated speed rom : Tolerance 1/min :	12.55 1192 ← 5
SETTING		‡	•	-
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1130 : 1500 : 13.55 : ← 0.05	† † †		
		+	LOW IDLE	

Rated speed rpm	:	275
rack travel mm	:	4.60
Tolerance mm	: +	- 0.10
Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +	- 3.0
Check tolerance		
cm3/1000s.	: +	- 6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0402646654

Injection pump

Pump designation : PE6P120A320RS7360Z

EP type number : 0412626937

Governor

Governer design. : RQ275/1150PA1193

Governer no. : 0421801752

Cust. part No. : 1285911/0

Customer-spec. information

Customer : DAF

Motor : GS 160 M Power KW : 160.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1680750089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 11.40 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 10.40 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 150.0

Tolerance cm3/1000 strokes	: 1.0	Rated speed rpm : 1360
Check tolerance cm3/1000s.	: + 4.0	funde sleeve travel mm : 11.50 Tolerance mm : + 0.10
Spreed Tolerance cm3/1000 strokes	: 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 9.0	control lever position degree : - 1 Rated speed rpm : 550
2nd speed rpm	: 275	Rack travel in mm: 15.80
Rack travel in mm Tolerance mm Del. quantity		Tolerance mm : + 0.60
cm3/1000 strokes Tolerance	: 15.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance	: ← 3.0	Rated speed rpm : 1000 Aneroid pressure
cm3/1000s. Spreed	: +- 6.0	hPa : 1000 Del. quantity
Tolerance cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : 150.0 + Tolerance
Check tolerance cm3/1000s.	: 12.0	cm3/1000 strokes : + 1.0 Check tolerance
		+ cm3/1000s. : + 4.0 + Spreed
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	Tolerance : 5.0 Check tolerance
GUIDE SLEEVE TRAVE	EL	cm3/1000s. : 9.0
Rated speed rpm guide sleeve		RATED SPEED
travel mm Tolerance mm	: 1.92 : ← 0.10	t control lever
Rated speed rpm	: 1206	<pre>position degree : 97.0 tolerance degree : +- 4.0</pre>
guide sleeve travel mm	: 6.49	rack travel mm : 9.40
Tolerance mm	: + 0.10	+ Rated speed rpm : 1202 + Tolerance 1/min : +- 8
Rated speed rpm guide sleeve	: 1150	rack travel mm : 4.00
travel mm Tolerance mm	: 6.00 : + 0.10	- Rated speed rpm : 1265 - Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 351	rack travel mm : 0.70
travel mm Tolerance mm	: 4.25 : + 0.10	Tolerance mm : + 0.70 Rated speed rpm : 1450
Rated speed rpm guide sleeve	: 440	LOW IDLE
travel mm Tolerance mm	: 6.00 : + 0.10	T + +

control lever position degree tolerance degree	: 74.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 4.90 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 340
Rated speed rpm	: 175
CRT mm min.	: > 7.00
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 10.40 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 10.40
Tolerance mm	: ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	: +- 0.10
ANEROID/ALTITUDE	: +- 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	: + 0.16 : 600 : 1000 : 10.40 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm	: 600 : 1000 : 10.40
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 600 : 1000 : 10.40
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm	: 600 : 1000 : 10.40 : + 0.05 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm Pressure hPa rack travel mm Tolerance mm MEASUREMENT Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 600 : 1000 : 10.40 : + 0.05 : + 0.05

FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
BREAKAWAY	
Rack travel in mm Rated speed rpm Tolerance 1/min	: 9.40 : 1202 : + 8
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 275 : 4.90 : + 0.10 : 15.0 : + 3.0 : + 6.0 : 8.0 : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0402646773

Injection pump

Pump designation : PE6P12DA32OLS7846

EP type number : 0412626865

Governor

Governer design. : RQV300...1050PA1033

: -15

Governer no. : 0421814120

Cust. part No. : 0250747202

Customer—spec. information Customer : MB-NFZ Motor : OM441 LA Power KW : 230.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5 Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0
x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 700

Rack travel in m Tolerance mm		+ guide sleeve + travel mm : 5.03 + Tolerance mm : ← 0.25
Del. quantity cm3/1000 strokes	: 231.0	Rated speed rpm : 820 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	† travel mm : 6.13 † Tolerance mm : + 0.25
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 1183 guide sleeve travel mm : 10.00
Spreed Tolerance cm3/1000 strokes	: 5.0	Tolerance mm : +- 0.25 Rated speed rpm : 1280 guide sleeve
Check tolerance cm3/1000S.	: 9.0	travel mm : 11.50 Tolerance mm : +- 0.50
2nd speed rpm	: 300	GUIDE SLEEVE POSITION
Rack travel in mn Tolerance mm Del. quantity cm3/1000 strokes	: + 0.30	control lever position degree : - 1 Rated speed rpm : 1160
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : ← 6.0	Rack travel in mm : 11.70 Tolerance mm : + 1.30
Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: 6.0 : 10.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : 1000
(B) SETTING OF IN WITH GOVERNOR	UECTION PUMP	<pre>- Del. quantity - cm3/1000 strokes : 231.0 - Tolerance - cm3/1000 strokes : +- 1.0</pre>
GUIDE SLEEVE TRAV	EL	+ Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 300 : 1.29 : + 0.20	Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1107 : 8.52 : + 0.15	RATED SPEED
Rated speed rpm guide sleeve travel mm	: 558 : 4.53	control lever position degree : 120.0 tolerance degree : + 4.0
Tolerance mm	: ← 0.25	rack travel mm : 12.00 Rated speed rpm : 1095
Rated speed rpm	: 608	+ Tolerance 1/min : +- 5

rack travel mm : 4.00	+ Tolerance mm : + 0.15
rack travel mm : 4.00 Rated speed rpm : 1170 Tolerance 1/min : +- 15	Rated speed rpm : 400
rack travel mm : 0.75 Tolerance mm : + 0.75 Rated speed rpm : 1300	Pressure hPa : 400 rack travel mm : 11.80 Tolerance mm : + 0.10
LOW IDLE	Pressure hPa : 600 rack travel mm : 12.80 Tolerance mm : +- 0.10
control lever position degree : 83.0 tolerance degree : + 4.0	START CUT-OUT
Testing:	+ Rated speed rpm : < 220 + Check
Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : +- 0.10	speed 1/min : < 240
Rated speed rpm : 200	FUEL DELIVERY CHARACTERISTICS Aneroid pressure
	hPa : 1000
CRT mm min. :> 8.00	hPa : 1000 Rated speed rpm : 1050 Del. quantity
Rated speed rpm : 350	Del. quantity - cm3/1000 strokes : 228.0 - Tolerance
TORQUE CONTROL	+ cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rpm : 700 rack travel mm : 13.00 Tolerance mm : + 0.05	- cm3/1000s. : +- 5.0 - Spreed - Tolerance
	+ cm3/1000 strokes : 8.0 + Check tolerance
Rated speed rpm : 1050 rack travel mm : 13.00 Tolerance mm : +- 0.10	- cm3/1000S. : 12.0 - Aneroid pressure
Rated speed rpm : 400 rack travel mm : 11.80	+ hPa : 400 + Rated speed rpm : 400 + Del. quantity
Tolerance mm : +- 0.10	cm3/1000 strokes : 172.0
ANEROID/ALTITUDE	+ cm3/1000 strokes : + 1.5 + Check tolerance
COMPENSATOR TEST	cm3/1000s. : +- 4.5
SETTING	+ Aneroid pressure + hPa : -
Rated speed rpm : 400	+ Rated speed rpm : 500 + Del. quantity
Pressure hPa : 1000 rack travel mm : 13.00	+ cm3/1000 strokes : 138.0 + Tolerance
Tolerance mm : + 0.05	+ cm3/1000 strokes : + 1.0 + Check tolerance
MEASUREMENT	+ cm3/1000s. : + 4.0 + Spreed
Pressure hPa : - Rated speed rpm : 400 rack travel mm : 10.40	Tolerance cm3/1000 strokes : 8.0

CO7

Check tolerance cm3/1000s. : 12.0

BREAKAWAY

Rack travel in mm : 12.00
Rated speed rpm : 1095
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 200.0 Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : \leftarrow 19.0

LOW IDLE

Rated speed rpm 300 rack travel mm 5.20 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s.10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.02.93 : ISO 4113

Combination No. : 0402646790

Injection pump

Pump designation: PE6P12OA32OLS7864

EP type number : 0412626879

Governor

Governer design. : RQV350...1050PA1052

: -2

Governer no.

: 0421814044

Cust. part No. : 0230748302

Customer-spec. information

Customer

: MB-NFZ

Motor

: 0M401 LA, Euro 1

Power KW

: 213.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5

Overflow quantity

min. l/h

120

Tolerance l/h: + 10.0

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

208.5

Tolerance bar

: + 1.5

Test Lines : 1680750075

Outside diameter :

8.0

x inside diameter :

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Tolerance mm : +-: +- 0.05

test only

: + 0.10

Rack travel in mm: 20.50

Tolerance mm

: +- 0.50

Firing order

: 6-3-5-2-4-

: 1-

Phasing

: 0-60-120-180-240

Tolerance

: -300-360 : + - 0.50

Check

tolerance °NW

: + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

6

BASIC SETTING

Rated speed rpm :

550

Rack travel in mm:

Tolerance mm

12.45 : +- 0.05

Del. quantity

cm3/1000 strokes :

201.0

Tolerance cm3/1000 strokes : + 1.0	Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : + 4.0	RATED SPEED
Spreed Tolerance cm3/1000 strokes : 5.0	control lever position degree : 103.0 tolerance degree : + 4.0
Check tolerance cm3/1000s. : 9.0	rack travel mm : 11.40 Rated speed rpm : 1095
2nd speed rpm : 350	Tolerance 1/min : +- 5
Rack travel in mm: 5.20 Tolerance mm: + 0.30 Del. quantity cm3/1000 strokes: 19.0	rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1300
Tolerance cm3/1000 strokes : 6.0	LOW IDLE
Check tolerance cm3/1000s. : 10.0	control lever position degree : 69.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	tolerance degree : +- 4.0 Testing:
GUIDE SLEEVE POSITION	Rated speed rpm : 350 rack travel mm : 5.20 Tolerance mm : + 0.10
control lever position degree : -1	Rated speed rpm : 250 CRT mm min. :> 8.70
Rated speed rpm : 1190 + Rack travel in mm : 11.40 +	Rated speed rpm : 415
Tolerance mm : + 1.30 +	TORQUE CONTROL
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 550 rack travel mm : 12.45
Rated speed rpm : 550 Aneroid pressure	Tolerance mm : +- 0.05
hPa : 1000 Del. quantity cm3/1000 strokes : 201.0	Rated speed rpm : 1050 rack travel mm : 12.45 Tolerance mm : +- 0.05
Tolerance + 1.0 + Check tolerance + 1.0 +	ANICDOTO (AL TITUDE
cm3/1000s. : + 4.0 Spreed	ANEROID/ALTITUDE COMPENSATOR TEST
Tolerance cm3/1000 strokes : 5.0	

MEASUREMENT

Pressure hPa Rated speed rom 500

Pressure hPa 200 rack travel mm 0.45 Tolerance mm 0.05

Pressure hPa 450 1.80 rack travel mm Tolerance mm : + 0.10

START CUT-OUT

Rated speed rpm : < 270 Check

speed 1/min 290 : <

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1000 Rated speed rom 1050 Del. quantity

cm3/1000 strokes : 202.0 Tolerance

cm3/1000 strokes 2.0 Check tolerance

cm3/1000s. 5.0 : +-

Spreed Tolerance

cm3/1000 strokes : 8.0 Check tolerance

cm3/1000s. 12.0

Aneroid pressure

hPa 1000 Rated speed rpm 1050 Del. quantity

cm3/1000 strokes : 152.0 Tolerance

: +-

2.0

cm3/1000 strokes

Check tolerance cm3/1000s. 5.0 : +-

Aneroid pressure

hPa Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 127.0

Tolerance

cm3/1000 strokes 1.0

Check tolerance cm3/1000s. 4.0 Spreed

Tolerance

cm3/1000 strokes : 8.0 Check tolerance

cm3/1000s. 12.0

BREAKAWAY

Rack travel in mm: 11.40 Rated speed rpm : 1095 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity

cm3/1000 strokes : 205.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 350 rack travel mm 5.20 Tolerance mm 0.30 Del. quantity cm3/1000 strokes 19.0 Tolerance cm3/1000 strokes 3.0 : +-Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance

cm3/1000 strokes : 6.0 Check tolerance

cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02.11.94 : ISO 4113

Combination No. : 0402746922

Injection pump

Pump designation : PES6P120A720LS7238

: -10

EP type number : 0412726873

Governor

Governer design. : RQ300/1100PA1013-3

Governer no. : 0421801609

Cust. part No. :

Customer-spec. information

Customer : MB-NFZ

Motor

: 0M447 hLA

Power KW

: 220.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar :

1.5

Tolerance bar : +

0.1

Tolerance l/h: +- 10.0

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

Tolerance bar

208.5

1.5

Table Lines

: 1680750075

CIZ

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only

: + - 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order

: 6-2-4-1-5-: 3

Phasing

: 0-60-120-180-240

: -300

Tolerance

: + - 0.30

Check

tolerance °NW : \leftarrow 0.70

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm :

600

Rack travel in mm: 13.80

Tolerance mm : \leftarrow 0.10

Del. quantity cm3/1000 strokes : 206.0	Check tolerance cm3/1000S. : 9.0
Tolerance cm3/1000 strokes : + 1.0	RATED SPEED
Check tolerance cm3/1000s. : + 4.0	control lever
Spreed Tolerance cm3/1000 strokes : 5.0	position degree : 98.0 tolerance degree : + 4.0
Check tolerance	rack travel mm : 13.50 Rated speed rpm : 1153 Tolerance 1/min : +- 8
cm3/1000s. : 9.0 + 2nd speed rpm : 300 + 2nd speed rpm	rack travel mm : 4.00 Rated speed rpm : 1245
Rack travel in mm: 6.30	Tolerance 1/min : +- 15
Tolerance mm : + 0.30 + Del. quantity cm3/1000 strokes : 19.0 +	rack travel mm : 0.75 Tolerance mm : +- 0.75 Rated speed rpm : 1300
Tolerance + cm3/1000 strokes : + 3.0 + Check tolerance + cm3/1000 strokes + cm3/1000 stro	LOW IDLE
cm3/1000S. : +- 6.0	
Tolerance cm3/1000 strokes : 6.0 Check tolerance	control lever position degree : 73.0 tolerance degree : +- 4.0
cm3/1000s. : 10.0	Testing:
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 300 rack travel mm : 6.30 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION	rack travel mm : 2.00 Rated speed rpm : 400
Rated speed rpm : 600	Tolerance 1/min : + 20 Rated speed rpm : 200
Rack travel in mm : 20.00 Tolerance mm : + 0.80	CRT mm min. : > 8.40
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 600 Aneroid pressure hPa : 600 Del. quantity	Rated speed rpm : 600 rack travel mm : 13.80 Tolerance mm : +- 0.10
cm3/1000 strokes : 206.0 + Tolerance cm3/1000 strokes : +- 1.0 + Tolerance cm3/1000 strokes : +- 1.0	Rated speed rpm : 1100 rack travel mm : 14.50 Tolerance mm : +- 0.10
Check tolerance cm3/1000s. : + 4.0 Spreed	
Tolerance + cm3/1000 strokes : 5.0 +	

ANEROID/ALTITUDE COMPENSATOR TEST

MEASUREMENT

Pressure hPa : 150
rack travel mm : -2.10
Tolerance mm : + 0.05

Pressure hPa : 350
rack travel mm : -0.60
Tolerance mm : + 0.10

Pressure hPa : 800 rack travel mm : 0.20 Tolerance mm : + 0.05

START CUT-OUT

Rated speed rpm : < 220 Check speed 1/min : < 240

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm Del. quantity

: 1400 : 1100 : 222.5

1.5

4.5

8.0

cm3/1000 strokes : Tolerance cm3/1000 strokes : +-Check tolerance

cm3/1000s. Spreed

Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Aneroid pressure hPa

nra : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 141.0

Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed

Tolerance cm3/1000 strokes :

Check tolerance cm3/1000s. : 12.0

BREAKAWAY

Rack travel in mm : 13.50
Rated speed rpm : 1153
Tolerance 1/min : + 8

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : +- 14.0

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	:	+-	300 6.30 0.30
cm3/1000 strokes	:		19.0
Tolerance cm3/1000 strokes	:	+-	3.0
Check tolerance cm3/1000s. Spreed	:	+	6.0
Tolerance			
cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.10.94 Test oil : ISO 4113

Combination No. : 0402746993

Injection pump

Pump designation : PES6P120A720LS7341

EP type number : 0412726913

Governor

Governer design. : RQV350...1150PA1159

Governer no. : 0421814099

Cust. part No. : 0250742302

Customer-spec. information Customer : MTU Motor

: 6-R-183 Power KW : 440.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar

Tolerance l/h: \leftarrow 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

208.5 Tolerance bar : **←** 1.5

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : **←** 0.05

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-2-4-1-5-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 10.20 Tolerance mm : \leftarrow 0.05

Dal muambibu.		+ Rated speed rpm : 466
Del. quantity		+ guide sleeve
cm3/1000 strokes	: 275.0	+ travel mm : 3.35
Talamana		+ Tolerance mm : + 0.25
Tolerance	4.0	
cm3/1000 strokes	: +- 1.0	Rated speed rpm : 600
Check tolerance		+ guide sleeve
cm3/1000s.	: + 4.0	travel mm : 3.83 Tolerance mm : + 0.25
· 10000:	4.0	T roter ance min . += 0.25
Spreed		Rated speed rpm : 1308
Tolerance		guide sleeve
cm3/1000 strokes	: 6.0	+ travel mm : 10.00
	******	+ Tolerance mm : +- 0.25
Check tolerance		+
cm3/1000s.	: 9.0	+ Rated speed rpm : 1410
Ond mand me	. 750	† guide sleeve
2nd speed rpm	: 350	+ travel mm : 11.50
Rack travel in mm	. 410	Tolerance mm : + 0.50
Tolerance mm	: + 0.30	I
Del. quantity	0.30	GUIDE SLEEVE POSITION
cm3/1000 strokes	: 17.0	1 00106 055646 100111014
Tolerance		+
cm3/1000 strokes	: + 3.0	+ control lever
Check tolerance		+ position degree : -1
cm3/1000s.	: ← 6.0	+ position degree : - 1 + Rated speed rpm : 1260
Spreed		†
Tolerance	. (0	+ Rack travel in mm: 13.00
cm3/1000 strokes Check tolerance	: 6.0	Tolerance mm : +- 1.30
cm3/1000s.	: 10.0	İ
UII-57 100005.	. 10.0	FULL LOAD DELIVERY AT FULL LOAD STOP
		TOCK BOND DELIVERY AT THE EDAD STOP
		
(B) SETTING OF IN.	PECTION PUMP	Rated speed rpm : 600
(B) SETTING OF IN. WITH GOVERNOR	PECTION PUMP	Rated speed rpm : 600 Aneroid pressure
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	+ Aneroid pressure + hPa : 800
WITH GOVERNOR		+ Aneroid pressure + hPa : 800 - Del. quantity
(B) SETTING OF IN. WITH GOVERNOR GUIDE SLEEVE TRAVE		+ Aneroid pressure + hPa : 800 Del. quantity + cm3/1000 strokes : 275.0
WITH GOVERNOR GUIDE SLEEVE TRAVE	EL	+ Aneroid pressure + hPa : 800 - Del. quantity - cm3/1000 strokes : 275.0 - Tolerance
GUIDE SLEEVE TRAVE		Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve	EL : 350	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance
GUIDE SLEEVE TRAVE	EL : 350 : 1.53	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm	EL : 350	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed
WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	EL : 350 : 1.53	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0
WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	EL : 350 : 1.53 : + 0.15 : 1206	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	EL : 350 : 1.53 : ← 0.15 : 1206 : 8.35 : ← 0.20	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : ← 0.15 : 1206 : 8.35 : ← 0.20 : 950	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	EL : 350 : 1.53 : ← 0.15 : 1206 : 8.35 : ← 0.20 : 950	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 120.0
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 950 : 5.78 : + 0.25 : 416 : 2.77	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 120.0
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 5.78 : + 0.25 : 416	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 120.0 tolerance degree : + 4.0 rack travel mm : 13.10 Rated speed rpm : 1195
GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	EL : 350 : 1.53 : + 0.15 : 1206 : 8.35 : + 0.20 : 950 : 950 : 5.78 : + 0.25 : 416 : 2.77	Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 120.0 tolerance degree : + 4.0 rack travel mm : 13.10

rack travel mm : 4.00 - Rated speed rpm : 1300 - Tolerance 1/min : + 15 - Tolerance mm : 0.75 - Tolerance mm : 0.75 - Tolerance mm : 0.75	Pressure hPa : 400 rack travel mm : 9.00 Tolerance mm : + 0.10 Pressure hPa : 1300
Tolerance mm : +- 0.75 Rated speed rpm : 1400	Pressure hPa : 1300 - rack travel mm : 11.60 - Tolerance mm : +- 0.05
LOW IDLE	- Pressure hPa : 1700 - rack travel mm : 13.70 - Tolerance mm : +- 0.10
control Lever position degree : 65.0 tolerance degree : + 4.0	START CUT-OUT
Testing:	- Rated speed rpm : < 270 - Check - speed 1/min : < 290
Rated speed rpm : 350	
rack travel mm : 4.10 Tolerance mm : + 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 250	- Aneroid pressure
CRT mm min. : > 5.60	- hPa : 2000 - Rated speed rpm : 1150
Rated speed rpm : 425	- Del. quantity - cm3/1000 strokes : 332.0 - Tolerance
TORQUE CONTROL	cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed row . 600	cm3/1000s. : +- 4.5
Rated speed rpm : 250 CRT mm min. : > 5.60 Rated speed rpm : 425 TORQUE CONTROL Rated speed rpm : 600 rack travel mm : 10.20 Tolerance mm : + 0.05 Rated speed rpm : 1150 rack travel mm : 14.10 Tolerance mm : + 0.10	Spreed Tolerance cm3/1000 strokes : 8.0
Rated speed rpm : 1150 rack travel mm : 14.10	Check tolerance cm3/1000s. : 12.0
rack travel mm : 14.10 Tolerance mm : + 0.10	Aneroid pressure
Rated speed rpm : 800 rack travel mm : 14.10	hPa : - Rated speed rpm : 500
Tolerance mm : + 0.10	Del. quantity cm3/1000 strokes : 125.0 Tolerance
ANEROID/ALTITUDE	cm3/1000 strokes : +- 1.0 Check tolerance
COMPENSATOR TEST	cm3/1000S. : +- 4.0 Spreed Tolerance
MEASUREMENT T	cm3/1000 strokes : 8.0 Check tolerance
Pressure hPa : -	cm3/1000s. : 12.0
Rated speed rpm : 600 + rack travel mm : 6.20 + Tolerance mm : + 0.10 +	BREAKAWAY
Pressure hPa : 200 + rack travel mm : 7.20 + Tolerance mm : + 0.05	Rack travel in mm : 13.10 Rated speed rpm : 1195 Tolerance 1/min : +- 5

C17

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 15.60 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 410.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance cm3/1000s. : + 24.0

LOW IDLE

Rated speed rpm 350 rack travel mm 4.10 0.30 Tolerance mm Del. quantity cm3/1000 strokes 17.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 27.10.94 Test oil : ISO 4113

Combination No. : 0403246037

Injection pump

Pump designation : PES6MW100/720RS1517

: -3

EP type number : 0413206020

Governor

Governer design. : RQV300...1200MW132

: -9

Governer no. : 0420083314

Cust. part No. : 0250748702

Customer—spec. information Customer : MB-NFZ

Motor : 0M366LA Power KW : 125.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1419992198

Inlet press. bar: 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Test lines : 1680750089

Outside diameter : 8.0

•

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Toterance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

4

Phasing : 0-60-120-180-240

: -300 : +- 0.50

Check tolerance °NW : + 0.75

BASIC SETTING

Tolerance

Rated speed rpm : 1200

Rack travel in mm : 11.25 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +-

: + 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance cm3/1000 strokes	: 3.5	
Check tolerance cm3/1000s.		GUIDE SLEEVE POSITION
UID/10003.	: 0.0	control lever
Del. quantity		position degree : - 1
cm3/1000 strokes	: 12.0	Rated speed rpm : 1300
Tolerance		
cm3/1000 strokes Check tolerance	: +- 2.0 -	Rack travel in mm: 13.00
cm3/1000s.	: +- 4.5	Tolerance mm : +- 2.00
Spreed	4.5	
Tolerance	4	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: 3.5	
Check tolerance		- Rated speed rpm : 1200
cm3/1000s.	: 5.5	Aneroid pressure
]	hPa : 1000 Del. quantity
(B) SETTING OF IN	NJECTION PUMP	cm3/1000 strokes : 95.0
WITH GOVERNOR	4	- Tolerance
	-	- cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAV	/51	- Check tolerance
COINT SEEFAE LIVIN	1	- cm3/1000s. : +- 3.0 - Spreed
Rated speed rpm	: 300	- Tolerance
guide sleeve	4	- cm3/1000 strokes : 3.5
travel mm	: 1.02	- Check tolerance
Tolerance mm	: ← 0.25	- cm3/1000s. : 6.0
Rated speed rpm	: 1253	
guide sleeve	+	- RATED SPEED
travel mm	: 7.33	_
Tolerance mm	: ← 0.25	
Rated speed rpm	: 811	- control lever - position degree : 119.0
guide sleeve		- tolerance degree : +- 4.0
travel mm	: 4.16	-
Tolerance mm	: ← 0.25	rack travel mm : 10.20
Pated cheed nom	: 550	- Rated speed rpm : 1245
Rated speed rpm guide sleeve	: 550	Tolerance 1/min : +- 5
travel mm	: 2.80	rack travel mm : 4.00
Tolerance mm	: ← 0.25 ↓	Rated speed rpm : 1380
Dation	+	Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 600	made traced was 0.50
travel mm	: 3.23	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm	: + 0.25	Rated speed rpm : 1500
	+	
Rated speed rpm	: 560	1.01. 201.
guide sleeve travel mm	: 3.08	LOW IDLE
Tolerance mm	: + 0.25	
	I	control lever
Rated speed rpm	: 1750	position degree : 71.0
guide sleeve	+ 47.50	tolerance degree : +- 4.0
travel mm Tolerance mm	: 13.50 : + 0.50	Toobing
OCCIONICE IIIII	5.30	Testing:
-00	т	

Rated speed rpm	: 300 : 3.50	t.	
rack travel mm Tolerance mm	: - 0.10	<u> </u>	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 200		Aneroid pressure nPa : 1000
CRT mm min.	: > 4.20	+ F	Rated speed rpm : 750 Del. quantity
TORQUE CONTROL		 	cm3/1000 strokes : 87.0 Folerance cm3/1000 strokes : +- 1.5
Rated speed rpm rack travel mm Tolerance mm	: 11.25	+ C + C + S	Check tolerance cm3/1000s. : +- 4.0 Spreed
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.25 : ← 0.10	‡ °	Tolerance cm3/1000 strokes : 5.5 check tolerance cm3/1000S. : 7.0
Rated speed rpm rack travel mm Tolerance mm	: 600 : 11.25	+ A + h + R	neroid pressure Pa : 1000 Pated speed rpm : 600 Pel. quantity
ANEROID/ALTITUDE COMPENSATOR TEST		+ T	m3/1000 strokes : 88.0 olerance m3/1000 strokes : +- 1.5 heck topics and the second strokes in the second strokes in the second second strokes in the second
SETTING		+	m3/1000s. : +- 4.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1000 : 11.25 : ← 0.05	+ hi + Ri + Do + cr + To	neroid pressure Pa : - ated speed rpm : 500 el. quantity m3/1000 strokes : 57.0 olerance m3/1000 strokes : +- 1.0
Pressure hPa Rated speed rpm rack travel mm	: 9.40		heck tolerance m3/1000s. : +- 3.0
Tolerance mm		† BF	REAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 350 : 10.85 : + 0.10	+ Ra	ack travel in mm : 10.20 ated speed rpm : 1245 olerance 1/min : +- 5
Pressure hPa rack travel mm Tolerance mm	: 10.15	+ + Ra	TARTING FUEL DELIVERY
START CUT-OUT		+ cm	el. quantity 13/1000 strokes : 160.0
Rated speed rpm Check	: < 220	— <u>+</u> cm	olerance n3/1000 strokes : +- 5.0
speed 1/min	: < 240	T cm	neck tolerance 13/1000s. : +- 8.0
-04		ſ	

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0403466148

Injection pump

Pump designation : PES6MW100/120RS1137

: -3

EP type number : 0413406236

Governor

Governer design. : RSV550...1100MW2A335

: -8

Governer no. : 0420085244

Cust. part No. : 3 929 184

Customer-spec. information

Customer : CDC

Motor : 6CTA-830/2188E

Power KW : 209.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.55 Tolerance mm : +- 0.05

test only : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1 S.o.d. blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 14.70 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 175.5

	+ Check tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Check tolerance cm3/1000s. : +- 4.0	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 7.5
Spreed Tolerance cm3/1000 strokes : 4.0	RATED SPEED
Check tolerance cm3/1000s. : 7.5	control lever
2nd speed rpm : 550	<pre>position degree : 92.0 tolerance degree : + 4.0</pre>
Rack travel in mm : 6.60 Del. quantity	rack travel mm : 13.70 Rated speed rpm : 1160
cm3/1000 strokes : 23.0 Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : +- 2.0 Check tolerance	rack travel mm : 4.00 Rated speed rpm : 1250
cm3/1000s. : +- 4.5 Spreed	Tolerance 1/min : + 5
Tolerance cm3/1000 strokes : 3.5	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000S. : 5.5	Rated speed rpm : 1350 rack travel mm : 6.00
	Rated speed rpm : 1260
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	<u> </u>
WITH GOVERNOR	LOW IDLE
GUIDE SLEEVE POSITION	LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION control lever position degree : - 3	control lever position degree : 71.0
GUIDE SLEEVE POSITION control lever	control lever position degree : 71.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.55 Tolerance mm : + 0.20 governor spring	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rom : 550
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.55 Tolerance mm : + 0.20	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 550 rack travel mm : 6.60 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.55 Tolerance mm : + 0.20 governor spring pre-tension	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 550 rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.55 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa : 1300	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 550 rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.55 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure	control lever position degree : 71.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 550 rack travel mm : 6.60 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 14.70

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa 1300 rack travel mm 15.40 Tolerance mm - 0.05

MEASUREMENT

Pressure hPa Rated speed rpm 500 rack travel mm 11.00 Tolerance mm : + - 0.10

Rated speed rpm 500

Pressure hPa 900 rack travel mm 14.60 : + 0.20 Tolerance mm

Pressure hPa 500 rack travel mm 11.90 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1300 Rated speed rpm 750 Del. quantity cm3/1000 strokes : 185.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 : +-

Aneroid pressure

hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 102.5 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s. 3.0

BREAKAWAY

Rack travel in mm: 13.70 Rated speed rpm 1160

Tolerance 1/min : +-5

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 20.00 Tolerance mm : **←** 1.00 Del. quantity cm3/1000 strokes : 135.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s. : **←** 13.0

LOW IDLE

Rated speed rpm 550 rack travel mm 6.60 Del. quantity cm3/1000 strokes : 23.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance 4.5 cm3/1000s.: +-Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07.09.94 : ISO 4113

Combination No. : 0402746988

Injection pump

Pump designation : PES6P120A320LS7322

EP type number : 0412726904

Governor

Governer design. : RQV350...1150PA1140K

Governer no. : 0421815409

Cust. part No. : 1823136091

Customer-spec. information Customer : NAVISTAR Motor : DTA-466

Power KW

: 139.5

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2417413076

Inlet press. bar : 2.8 Tolerance bar : + 0.1 Inlet press. bar :

Test nozzle holde

: 1688901101 assembly

Opening pressure

bar Tolerance bar

Test Lines : 1680750008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Prestroke mm : 2.90 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm: 11.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240 : -300

Tolerance : +- 0.50

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. Tolerance : +- 0.50 Check tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 12.65 Tolerance mm : $\leftarrow 0.05$

Del. quantity cm3/1000 strokes : 168.0

Tolerance cm3/1000 strokes	: + 1.0	‡	control lever position degree	· 75 በ
Check tolerance cm3/1000s.	: + 4.0	_	tolerance degree	: +- 6.0
Spreed		-	Testing:	
Tolerance cm3/1000 strokes	: 8.0		Rated speed rpm rack travel mm Tolerance mm	: 5.00
Check tolerance cm3/1000s.	: 12.0	+	rack travel mm Rated speed rpm	: 6.00 : 325
(B) SETTING OF IN	JECTION PUMP	†	Rated speed rpm	: 275
WITH COVERNOR		Ī	CRT mm min.	: > 7.00
FULL LOAD DELIVER	RY AT FULL LOAD STOP	- ‡	Rated speed rpm	: 425
Rated speed rpm Aneroid pressure	: 1150	Ī	TORQUE CONTROL	
hPa Del. quantity	: 1200	‡	Rated speed rpm rack travel mm	: 12.65
cm3/1000 strokes Tolerance	: 168.0	1	Tolerance mm	: + 0.05
cm3/1000 strokes Check tolerance		+	Rated speed rpm rack travel mm	
cm3/1000s. Spreed	: +- 4.0	<u>†</u>	Tolerance mm	: + 0.10
Tolerance cm3/1000 strokes	: 8.0	+	Rated speed rpm rack travel mm	: 600 : 11.40
Check tolerance cm3/1000s.	: 12.0	†	Tolerance mm	: ← 0.20
RATED SPEED		- I I	ANEROID/ALTITUDE COMPENSATOR TEST	
control lever position degree	: 120 0	İ	SETTING	
tolerance degree	: +- 6.0	+	Rated speed rpm Pressure hPa	: 1150 : 1200
rack travel mm Rated speed rpm Tolerance 1/min	: 11.60 : 1205 : +- 15	†	rack travel mm Tolerance mm	: 12.65 : + 0.05
rack travel mm	: 4.00	Ŧ	MEASUREMENT	
Rated speed rpm Tolerance 1/min	: 1350 : + 5	‡	Rated speed rpm	
rack travel mm Tolerance mm	: 0.50 : + 0.50	‡	Pressure hPa rack travel mm Tolerance mm	: 650 : 12.00 : + 0.20
Rated speed rpm	: 1450	_ ‡	Pressure hPa	: 300
LOW IDLE		Ŧ	rack travel mm Tolerance mm	: 10.65 : + 0.05

START CUT-OUT Rated speed rpm : < 280 Check speed 1/min : < 290 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 1200 Rated speed rom 750 Del. quantity cm3/1000 strokes 173.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000S.6.0 Spreed Tolerance cm3/1000 strokes 8.0 Check tolerance cm3/1000s. 12.0 Aneroid pressure hPa Rated speed rom 1150 Del. quantity cm3/1000 strokes 110.5 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 4.0 **BREAKAWAY** Rack travel in mm: 11.60 Rated speed rpm 1205 Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.50 : Tolerance mm : **←** 1.00 Del. quantity cm3/1000 strokes 130.0 Tolerance cm3/1000 strokes : + 20.0 Check tolerance

: +- 30.0

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 18.10.94 : ISO 4113

Combination No. : 0400075925

Injection pump

Pump designation : PES5M55C32ORS201 EP type number : 0410055972

Governor

Governer design. : RSF350/2500M56-13

Governer no. : 0420021171

Cust. part No. :

Customer-spec. information Customer : MB-PKW Motor : 0M605 Power KW : 83.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

: 1688901111 assembly

Opening pressure

bar 148.5 Tolerance bar : +- 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

D01

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : \leftarrow 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. 1

*NW after s.o.d. : 16.5 Tolerance Check tolerance °NW : + 0.30

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 12.75 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 37.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s.

: **←** 1.5

Spreed	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 3150
Check tolerance	SET IDLE CONTROL LEVER POSITION
cm3/1000s. : 3.0	Rated speed rpm : 1400
2nd speed rpm : 350	CRT mm max. : 1.95
Rack travel in mm: 7.40 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 8.5 Tolerance cm3/1000 strokes : + 0.5	Setting point w/out bumper spring Rated speed rpm : 350 rack travel mm : 7.40
Spreed	
Tolerance cm3/1000 strokes : 1.0	SET IDLE AUXILIARY SPRING
1	Rated speed rpm : 475
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 5.40 Tolerance mm : + 0.10
+	rack travel mm : 3.00
IDLE STAGE	Rated speed rpm : 700 Tolerance 1/min : +- 50
‡	Load pick-up
Rack travel in mm: 6.25 Tolerance mm: + 0.25	
T	Rated speed rpm : 250
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 10.00
Rated speed rpm : 1400	Rated speed rpm : 1400
Ref. pressure	CRT mm max. : 1.95
ALDA / ADA hPa : 1100 Del. quantity	rack travel mm : 7.40
cm3/1000 strokes : 37.0	Rated speed rpm : 350
cm3/1000 strokes : + 0.5 Check tolerance	
cm $3/1000$ s. : \leftarrow 1.5	TORQUE CONTROL
Spreed Tolerance	Rated speed rpm : 1400
cm3/1000 strokes : 2.5 Check tolerance	rack travel mm : 12.75
cm3/1000s. : 3.0	
	Rated speed rpm : 2300 rack travel mm : 12.20
RATED SPEED	Tolerance mm : + 0.15
control lever	Rated speed rpm : 2500 rack travel mm : 11.80
position degree : 50.0	rack travel mm : 11.80 Tolerance mm : +- 0.15
rack travel mm : 7.30	
Rated speed rpm : 2700	ADJUSTMENT TEST ADA/ALDA
Т	ADDODITION TEST ADM/ MEDA

SETTING

Rated speed rpm	:	1400
Ref. pressure ALDA / ADA hPa	:	940
rack travel mm Tolerance mm	; : ∃	-0.10 - 0.10

MEASUREMENT

Rated speed rpm Ref. pressure	:	1400
ALDA / ADA hPa rack travel mm	:	900 -0.40
Tolerance mm	•	- 0.10

Rated speed rpm	:	1400
Ref. pressure		
ALDA / ADA hPa	:	750
rack travel mm	:	-1.50
Tolerance mm	: 4	- 0.20

FUEL DELIVERY CHARACTERISTICS

Ref. pressure ALDA / ADA hPa Rated speed rpm	:		100 300
Del. quantity cm3/1000 strokes Tolerance	:		39.3
cm3/1000 strokes Check tolerance	: -	 	0.8
cm3/1000s. Spreed	: +	—	1.8
Tolerance cm3/1000 strokes			2.5
Check tolerance	•		۷.5
cm3/1000s.	:		3.0
Ref. pressure			

cm3/1000s.	:		3.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	•		100 500
Del. quantity cm3/1000 strokes Tolerance	:		37.5
cm3/1000 strokes	: ⊣		1.0
Check tolerance cm3/1000s. Spreed	: 4	 	2.0
Tolerance cm3/1000 strokes Check tolerance	:		2.5
cm3/1000s.	:		3.0

HIGH IDLE

Rated speed rpm rack travel mm Tolerance mm	: +-	2700 7.30 0.30
Del. quantity	• •	0.50
cm3/1000 strokes	:	13.0
Tolerance cm3/1000 strokes Check tolerance	: +-	2.0
cm3/1000s.	: +-	3.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm	:	100 20.10
Del. quantity cm3/1000 strokes Spreed	:	50.0
Tolerance cm3/1000 strokes	:	6.0
Check tolerance cm3/1000s.	:	6.0

LOW IDLE

Rated speed rpm	:	350
rack travel mm	:	7.40
Tolerance mm	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	9.5
Check tolerance		
cm3/1000s.	: +-	2.3
Spreed		
Check tolerance		
cm3/1000s.	:	1.5
	-	

CHECKING THE IDLE-SPEED AUXILIARY

degree	: >	49.00
degree	: <	46.50

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever position degree Rated speed rpm	-	VWL 400
Rack travel in mm	:	8.50

Tolerance mm : **←** 0.70 Vacuum hPa 400.0 Vacuum hPa 400

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400075926

Injection pump

Pump designation : PES5M55C32ORS201

EP type number : 0410055972

Governor

Governer design. : RSF350/2500M75-3

Governer no. : 0420021173

Cust. part No. :

Customer—spec. information Customer : MB-PKW Motor : 0M605

Motor : 0M605 Power KW : 83.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

600

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75
Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

*NW after s.o.d. : 16.5 Tolerance : + 0.20

Check

tolerance "NW : \leftarrow 0.30

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm : 12.75 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 37.0

Tolerance

cm3/1000 strokes : + 0.5

1.5

Check tolerance cm3/1000s. : +-

Spreed	rack travel mm : 0.50 Tolerance mm : +- 0.50
Tolerance †	Rated speed rpm : 3150
Check tolerance	SET IDLE CONTROL LEVER POSITION
cm3/1000s. : 3.0	Rated speed rpm : 1400
2nd speed rpm : 350	CRT mm max. : 1.95
Rack travel in mm: 7.40 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 8.5	Setting point w/out bumper spring
cm3/1000 strokes : + 0.5 Spreed	Rated speed rpm : 350 rack travel mm : 7.40
Tolerance cm3/1000 strokes : 1.0	SET IDLE AUXILIARY SPRING
+	Rated speed rpm : 475
(B) SETTING OF INJECTION PUMP	rack travel mm : 5.40 Tolerance mm : +- 0.10
WITH GOVERNOR	
	rack travel mm : 3.00
IDLE STAGE	Rated speed rpm : 700 Tolerance 1/min : +- 50
+	
Rack travel in mm: 6.25	Load pick-up
Tolerance mm : + 0.25	Rated speed rpm : 250
	CRT mm min. : > 10.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Dated aread many 4400
Rated speed rpm : 1400	Rated speed rpm : 1400
Ref. pressure ALDA / ADA hPa : 1100	CRT mm max. : 1.95
Del. quantity	rack travel mm : 7.40
cm3/1000 strokes : 37.0	Rated speed rpm : 350
Tolerance cm3/1000 strokes : + 0.5	
Check tolerance cm3/1000S. : + 1.5	TODAY CONTRACT
cm3/1000S. : + 1.5	TORQUE CONTROL
Tolerance	Rated speed rpm : 1400
cm3/1000 strokes : 2.5 Check tolerance	rack travel mm : 12.75 Tolerance mm : + 0.05
cm3/1000s. : 3.0	
	Rated speed rpm : 2300
RATED SPEED	rack travel mm : 12.20 Tolerance mm : +- 0.15
‡	Rated speed rpm : 2500
control lever	rack travel mm : 11.80
position degree : 50.0	Tolerance mm : ← 0.15
rack travel mm : 7.30	
Rated speed rpm : 2700	AN INCREMENT TROT AND AND A
+	ADJUSTMENT TEST ADA/ALDA

SETTING

Rated speed rpm	:	1400
Ref. pressure		
ALDA / ADA hPa	:	940
rack travel mm	:	-0.10
Tolerance mm	: 1	-0.10

MEASUREMENT

Rated speed rpm	:	1400
Ref. pressure		
ALDA / ADA hPa	:	900
rack travel mm	:	-0.40
Tolerance mm	: -	⊢ 0.10

Rated speed rpm Ref. pressure	:	1400
ALDA / ADA hPa	:	750
rack travel mm	:	-1.50
Tolerance mm	• -	-0.20

FUEL DELIVERY CHARACTERISTICS

Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity		100 300
cm3/1000 strokes Tolerance	:	39.3
cm3/1000 strokes Check tolerance	: +-	0.8
cm3/1000S. Spreed	: +-	1.8
Tolerance cm3/1000 strokes Check tolerance	:	2.5
cm3/1000s.	:	3.0
Ref. pressure		

ALDA / ADA hPa Rated speed rpm	:		100 500
Spreed	•	۲.	JUU
Del. quantity cm3/1000 strokes			77 E
Tolerance	•		37.5
cm3/1000 strokes	: ₹	-	1.0
Check tolerance cm3/1000s.			2.0
Spreed	• '		2.0
Tolerance			
cm3/1000 strokes Check tolerance	:		2.5
cm3/1000s.	:		3.0

HIGH IDLE

Rated speed rpm rack travel mm Tolerance mm	:	_	700 7.30 0.30
Del. quantity cm3/1000 strokes Tolerance	:		13.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s.	:	+	3.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm	:	100 20.10
Del. quantity cm3/1000 strokes Spreed	:	50.0
Tolerance cm3/1000 strokes Check tolerance	:	6.0
cm3/1000s.	:	6.0

LOW IDLE

Rated speed rpm	:	350
rack travel mm	:	7.40
Tolerance mm	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	9.5
Check tolerance		
cm3/1000s.	: +-	2.3
Spreed		
Check tolerance		
cm3/1000s.	:	1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree	: >	49.00
degree	: <	46.50

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever position degree Rated speed rpm	:	VWL 400
Rack travel in m	n •	2.5

Tolerance mm : ← 0.70 Vacuum hPa : 400.0 Vacuum hPa : 400

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1400 rack travel mm : 1.70 Tolerance mm : + 0.15

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 17.10.94 : ISO 4113

Combination No. : 0400075937

Injection pump

Pump designation : PES5M55C32ORS158

EP type number : 0410055986

Governor

Governer design. : RSF340/2300M74

Governer no. : 0420021140

Cust. part No. :

Customer-spec. information

: MB-PKW Customer Motor

Power KW

: OM602A-Abgast.

: 92.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 : + 2.0 Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar 148.5 Tolerance bar : **←** 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 2.25 Tolerance mm : + 0.05

test only : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. 1

°NW after s.o.d. : 19.5 : ← 0.20 Tolerance Check

tolerance °NW

: + 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 13.95 Tolerance mm : \leftarrow 0.05

Del. quantity	
Tolerance cm3/1000 strokes : + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s. : + 1.5	rack travel mm : 8.30 Rated speed rpm : 2500
Spreed	rack travel mm : 0.50 Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 2950
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION Rated speed rpm : 1000
2nd speed rpm : 345	CRT mm max. : 1.75
Rack travel in mm: 5.40 Tolerance mm: + 0.10 Del. quantity	- LOW IDLE
cm3/1000 strokes : 6.5 Tolerance	- control lever
cm3/1000 strokes : +- 0.5 Spreed Tolerance	- position degree : 10.0 - tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	- Setting point w/out bumper spring - Rated speed rpm : 345 - rack travel mm : 5.40
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 380 rack travel mm : 4.30 Tolerance mm : + 0.10
Rack travel in mm : 6.25 Tolerance mm : + 0.25	rack travel mm : 2.50 Rated speed rpm : 590 Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1000 Ref. pressure	Rated speed rpm : 220
ALDA / ADA hPa : 1850 Del. quantity	CRT mm min. :> 8.00
cm3/1000 strokes : 53.0 Tolerance	Rated speed rpm : 1000
cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 1.5	CRT mm max. : 1.75
Spreed	rack travel mm : 5.40 Rated speed rpm : 345
cm3/1000 strokes : 2.5 Check tolerance	
cm3/1000s. : 3.0 +	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 13.95

	: +- 0.05	+ Tolerance
Tolerance mm	0.03	+ cm3/1000 strokes : 2.5
Rated speed rpm	: 1600	+ Check tolerance
rack travel mm	: 13.20	+ cm3/1000S. : 3.0
Tolerance mm	: + 0.10	+ _,
Rated speed rpm	: 2200	+ Ref. pressure + ALDA / ADA hPa : 1100
rack travel mm	: 12.40	+ ALDA / ADA hPa : 1100 + Rated speed rpm : 1000
Tolerance mm	: +- 0.10	+ Del. quantity
		+ cm3/1000 strokes : 36.5
		+ roterance
ADJUSTMENT TEST	ΔΡΔ/ΔΙ ΡΔ	+ cm3/1000 strokes : + 0.5 + Check tolerance
10000111011 1201 1	NON NEON	+ cm3/1000S. : +- 1.5
SETTING		+ Spreed
		+ Tolerance
Rated speed rpm	: 1000	+ cm3/1000 strokes : 2.5
Ref. pressure ALDA / ADA hPa	: 1600	+ Check tolerance + cm3/1000S. : 3.0
The state of the s	. 1000	T (III) 10003 3.0
MEASUREMENT		+
Data dan dan	4000	+
Rated speed rpm Ref. pressure	: 1000	†
ALDA / ADA hPa	: 1100	HIGH IDLE
		+
Rated speed rpm	: 1000	+ Rated speed rpm : 2500
Ref. pressure ALDA / ADA hPa	: 750	+ rack travel mm : 8.30
ALUA / AUA III G	. 150	+ Tolerance mm : + 0.20 + Del. quantity
		+ cm3/1000 strokes : 31.0
		+ Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : + 2.0
Ref. pressure		+ Check tolerance
		+ cm3/10005 · +- < 0
ALDA / ADA hPa	: 1850	+ cm3/1000s. : ← 3.0 + Spreed
ALDA / ADA hPa Rated speed rpm		+ Spreed + Tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity	: 1600	+ Spreed + Tolerance + cm3/1000 strokes : 2.5
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1600	- Spreed - Tolerance - cm3/1000 strokes : 2.5 - Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 1600 : 51.8	+ Spreed + Tolerance + cm3/1000 strokes : 2.5
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1600 : 51.8	- Spreed - Tolerance - cm3/1000 strokes : 2.5 - Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1600 : 51.8	- Spreed - Tolerance - cm3/1000 strokes : 2.5 - Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 1600 : 51.8 : +- 0.8	Spreed Tolerance cm3/1000 strokes: 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 1600 : 51.8 : + 0.8 : + 1.8	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 1600 : 51.8 : + 0.8 : + 1.8 : 2.5	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1600 : 51.8 : + 0.8 : + 1.8	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1600 : 51.8 : + 0.8 : + 1.8 : 2.5	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0 Spreed
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0 Spreed Tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0 Spreed Tolerance cm3/1000 strokes : 6.0
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0 Spreed Tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850 : 2200	Spreed Tolerance cm3/1000 strokes: 2.5 Check tolerance cm3/1000s.: 3.0 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.10 Del. quantity cm3/1000 strokes: 53.0 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850 : 2200	Spreed Tolerance cm3/1000 strokes: 2.5 Check tolerance cm3/1000s.: 3.0 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.10 Del. quantity cm3/1000 strokes: 53.0 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850 : 2200 : 49.5	Spreed Tolerance cm3/1000 strokes: 2.5 Check tolerance cm3/1000s.: 3.0 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.10 Del. quantity cm3/1000 strokes: 53.0 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1600 : 51.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1850 : 2200 : 49.5 : + 1.0	Spreed Tolerance cm3/1000 strokes: 2.5 Check tolerance cm3/1000s.: 3.0 STARTING FUEL DELIVERY Rated speed rpm: 100 rack travel mm: 20.10 Del. quantity cm3/1000 strokes: 53.0 Spreed Tolerance cm3/1000 strokes: 6.0 Check tolerance
ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1600 : 51.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1850 : 2200 : 49.5	Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 53.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0

rack travel mm 5.40 Tolerance mm 0.10 Del. quantity cm3/1000 strokes 7.3 Check tolerance cm3/1000s. 2.3 Spreed Check tolerance cm3/1000s. 1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 44.50 degree : < 42.00

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever position degree 10.0 : tolerance degree : +-2.0 Rated speed rpm 370 Tolerance cm3/1000 strokes : +-4.0

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A 3.00

Starting test

Rated speed rpm 100

Current A • 1.80

TESTING & SETTING RACK TRAVEL SENSOR POSITION

Receiving inspection

Rated speed rpm : 1000

Ref. pressure

ALDA / ADA hPa 1850

Set quantity with control lever

cm3/1000 strokes : 25.5 Tolerance

cm3/1000 strokes : \leftarrow 0.5 : 1.636 Voltage Volt Tolerance Volt : + 0.003

Check tolerance

Volt : + 0.001

Adjustment of the control-rod travel

sensor

control lever

position degree 50.0 Rated speed rpm 1000

Ref. pressure ALDA / ADA hPa 1850

Rack travel in mm

Voltage Volt 2.502 Tolerance Volt : + 0.030

Check tolerance

Volt $: \leftarrow 0.060$

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm 1000

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 Test oil : ISO 4113

Combination No. : 0400075942

Injection pump

Pump designation : PES5M55C32ORS158-1

EP type number : 0410055979

Governor

Governer design. : RSF340/2300M73 Governer no. : 0420021129

Cust. part No. :

Customer—spec. information Customer : MB-PKW Motor : OM602A-ECE Power KW : 92.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

test only $: \leftarrow 0.10$

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-2-4-5-3

Phasing : 0-72-144-216-288

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

*NW after s.o.d. : 19.5 Tolerance : + 0.20 Check

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.95 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 53.0

Tolerance cm3/1000 strokes : + 0.5	control lever
Check tolerance : +- 1.5	position degree : 50.0 rack travel mm : 8.30
Spreed	rack travel mm : 8.30 Rated speed rpm : 2500
Tolerance cm3/1000 strokes : 2.5	- rack travel mm : 0.50 - Tolerance mm : +- 0.50 - Rated speed rpm : 2950
Check tolerance cm3/1000S. : 3.0 -	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 345	- Rated speed rpm : 1000
Rack travel in mm: 5.30 Tolerance mm: + 0.10 Del. quantity	- CRT mm max. : 1.75
cm3/1000 strokes : 6.5 Tolerance	- LOW IDLE
cm3/1000 strokes : + 0.5 Spreed Tolerance cm3/1000 strokes : 1.0	- control lever - position degree : 10.0 - tolerance degree : + 2.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Setting point w/out bumper spring Rated speed rpm : 345 rack travel mm : 5.30
IDLE STAGE	SET IDLE AUXILIARY SPRING
Rack travel in mm : 6.25	Rated speed rpm : 400 rack travel mm : 4.30 Tolerance mm : +- 0.10
Tolerance mm : + 0.25 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.50 Rated speed rpm : 610
Rated speed rpm : 1000	Tolerance 1/min : +- 50 Load pick-up
Ref. pressure ALDA / ADA hPa : 1850	Rated speed rpm : 220
Del. quantity cm3/1000 strokes : 53.0	CRT mm min. :> 8.00
Tolerance cm3/1000 strokes : + 0.5	Rated speed rpm : 1000
Check tolerance : + 1.5	CRT mm max. : 1.75
Spreed + Tolerance cm3/1000 strokes : 2.5 +	rack travel mm : 5.30 Rated speed rpm : 345
Check tolerance cm3/1000s. : 3.0	
RATED SPEED	TORQUE CONTROL
+	Rated speed rpm : 1000 rack travel mm : 13.95 Tolerance mm : + 0.05

		1. Tolonopeo
Rated speed rpm rack travel mm Tolerance mm	: 1600 : 13.20	+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
		- cm3/1000s. : + 2.0 - spreed - Tolerance - cm3/1000 strokes : 2.5 - Check tolerance - cm3/1000s. : 3.0
Rated speed rpm rack travel mm Tolerance mm	: 12.40	Tolerance - cm3/1000 strokes : 2.5 - Check tolerance
		cm3/1000s. : 3.0
ADJUSTMENT TEST	ADA/ALDA	+ Ref. pressure + ALDA / ADA hPa : 1100 + Rated speed rpm : 1000
SETTING		+ Del. quantity
Rated speed rpm	: 1000	+ cm3/1000 strokes : 36.5 + Tolerance
Ref. pressure ALDA / ADA hPa		+ cm3/1000 strokes : + 0.5 + Check tolerance
rack travel mm Tolerance mm		+ cm3/1000s. : + 1.5 + Spreed
MEASUREMENT		Tolerance cm3/1000 strokes : 2.5
Rated speed rpm	: 1000	+ Check tolerance + cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa		‡
rack travel mm Tolerance mm		‡
Rated speed rpm	: 1000	HIGH IDLE
Ref. pressure ALDA / ADA hPa	: 750	Rated speed rpm : 2500
rack travel mm Tolerance mm		rack travel mm : 8.30 Tolerance mm : + 0.20
		+ Del. quantity + cm3/1000 strokes : 31.0
FUEL DELIVERY CHA	ARACTERISTICS	+ Tolerance + cm3/1000 strokes : + 2.0
Ref. pressure		+ Check tolerance + cm3/1000S. : + 3.0
ALDA / ADA hPa Rated speed rpm		+ Spreed + Tolerance
Del. quantity cm3/1000 strokes	: 51.8	cm3/1000 strokes : 2.5 Check tolerance
Tolerance cm3/1000 strokes	: 0.8	cm3/1000s. : 3.0
Check tolerance cm3/1000s.	: +- 1.8	STARTING FUEL DELIVERY
Spreed Tolerance		Rated speed rpm : 100
cm3/1000 strokes Check tolerance	: 2.5	+ rack travel mm : 20.10
cm3/1000s.	: 3.0	+ Del. quantity + cm3/1000 strokes : 53.0 + Spreed
Ref. pressure ALDA / ADA hPa	: 1850	Tolerance cm3/1000 strokes : 6.0
Rated speed rpm Spreed		- Check tolerance - cm3/1000s. : 6.0
Del. quantity cm3/1000 strokes	: 49.5	1

LOW IDLE

Rated speed rpm : 345
rack travel mm : 5.30
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 7.8

Check tolerance cm3/1000s. : +- 2.3

Spreed

Check tolerance cm3/1000s. : 1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 44.50

degree : < 42.00

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 10.0 tolerance degree : +- 2.0 Rated speed rpm : 345

Rack travel in mm: 12.60 Tolerance mm: + 0.80

Del. quantity

cm3/1000 strokes : 43.0

Tolerance

cm3/1000 strokes : \leftarrow 4.0

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2950

Rack travel in mm: 0.50 Tolerance mm: + 0.50

Current short-

duration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1000

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.10.94 Test oil : ISO 4113

Combination No. : 0400076953

Injection pump

Pump designation : PES6M55C32ORS203

EP type number : 0410056982

Governor

Governer design. : RSF315/2500M70-11

Governer no. : 0420021270

Cust. part No. :

Customer-spec. information Customer : MB-PKW

Motor : 0M606 USA

Power KW : 95.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

148.5 bar Tolerance bar : \leftarrow 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : : : ← 0.05

test only : +- 0.10

Rack travel in mm: 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. 1

°NW after s.o.d. : 17.0 Tolerance : + 0.20

Check

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.15 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 38.0

D17

Tolerance cm3/1000 strokes : + 0.5	control lever
Check tolerance cm3/1000S. : + 1.5	position degree : 50.0 rack travel mm : 7.90 Rated speed rpm : 2700
Spreed	
Tolerance cm3/1000 strokes : 2.5	rack travel mm : 1.00 Tolerance mm : +- 1.00 Rated speed rpm : 3000
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 290	Rated speed rpm : 1100
Rack travel in mm: 7.30 Tolerance mm: + 0.10 Del. quantity	CRT mm max. : 1.95
cm3/1000 strokes : 8.5 Tolerance cm3/1000 strokes : + 0.5	LOW IDLE
Spreed Tolerance cm3/1000 strokes : 1.0	control lever position degree : 10.5 tolerance degree : +- 2.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 7.30
IDLE STAGE	SET IDLE AUXILIARY SPRING
Rack travel in mm: 6.25 Tolerance mm: + 0.25	Rated speed rpm : 400 rack travel mm : 6.00 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 3.00 Rated speed rpm : 675 Tolerance 1/min : +- 50
Rated speed rpm : 1100	Load pick-up
Ref. pressure ALDA / ADA hPa : 1100 Del. quantity	Rated speed rpm : 220
cm3/1000 strokes : 38.0	CRT mm min. :> 9.00
cm3/1000 strokes : + 0.5 Check tolerance	Rated speed rpm : 1100
cm3/1000s. : + 1.5 Spreed	CRT mm max. : 1.95
Tolerance cm3/1000 strokes : 2.5 Check tolerance	rack travel mm : 7.30 Rated speed rpm : 290
cm3/1000s. : 3.0	
RATED SPEED	TORQUE CONTROL
‡	Rated speed rpm : 1100 rack travel mm : 13.15 Tolerance mm : +- 0.05

Rated speed rpm : 2000 rack travel mm : 12.40 Tolerance mm : + 0.15 Rated speed rpm : 2500 rack travel mm : 11.90 Tolerance mm : + 0.15 ADJUST NEGATIVE TORQUE CONTROLL Rated speed rpm : 500 rack travel mm : 12.40 Tolerance mm : + 0.15 Rated speed rpm : 900 rack travel mm : 13.00 Tolerance mm : + 0.15	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Ratand speed rpm : 2500 Spreed Del. quantity cm3/1000 strokes : 37.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance
	+ cm3/1000s. : 3.0
ADJUSTMENT TEST ADA/ALDA	ADJUST NEGATIVE TORQUE CONTROLL
SETTING	+
Rated speed rpm : 1100 Ref. pressure ALDA / ADA hPa : 940 rack travel mm : -0.10 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 1100 Ref. pressure ALDA / ADA hPa : 900 rack travel mm : -0.40 Tolerance mm : + 0.10 Rated speed rpm : 1100 Ref. pressure ALDA / ADA hPa : 750 rack travel mm : -1.50 Tolerance mm : + 0.20	Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 32.3 Tolerance cm3/1000s. : + 1.8 Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 900 Del. quantity cm3/1000 strokes : 36.3 Tolerance cm3/1000 strokes : 40.8 Check tolerance
FUEL DELIVERY CHARACTERISTICS	+ cm3/1000s. : + 1.8 + Spreed
Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2000 Del. quantity cm3/1000 strokes : 38.3 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000S. : + 1.8 Spreed	Tolerance - cm3/1000 strokes : 2.5 - Check tolerance - cm3/1000s. : 3.0 HIGH IDLE - Rated speed rpm : 2700 - rack travel mm : 7.90

Tolerance mm	: +- 0.10
Del. quantity cm3/1000 strokes	
Tolerance	
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000S. Spreed	: ← 3.0
Tolerance	. 2 5
cm3/1000 strokes Check tolerance	: 2.5
cm3/1000s.	: 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm Del. quantity	: 20.10
cm3/1000 strokes Spreed	: 52.0
Tolerance	
cm3/1000 strokes Check tolerance	: 6.0
cm3/1000s.	: 6.0
LOW IDLE	
Rated speed rpm	: 290
rack travel mm Tolerance mm	: 7.30 : +- 0.10
Del. quantity cm3/1000 strokes	
Check tolerance	: 9.5
cm3/1000s. Spreed	: +- 2.5
Check tolerance cm3/1000s.	: 1.5
0	. 1.3
SETTING/TESTING EL REGULATION (ELR)	ECTRONIC IDLE
control lever	
position degree	: 10.5 : +_ 2.0
tolerance degree Rated speed rpm	: ← 2.0 : 315
Rack travel in mm	: 13.10
Tolerance mm Del. quantity	: ← 0.70
cm3/1000 strokes	
Tolerance	: 34.0

Current A : 1.80

control lever position degree : 50.0 Rated speed rpm : 3000

Rack travel in mm : 1.00 Tolerance mm : + 1.00

Current short—duration A : 3.00

Starting test

Rated speed rpm : 100

Adjustment of the control-rod travel sensor

control lever position degree : 50.0

Current A : 1.80

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.10.94 Test oil : ISO 4113

Combination No. : 0400076954

Injection pump

Pump designation : PES6M55C32ORS2O3

EP type number : 0410056982

Governor

Governer design. : RSF315/2500M70-10

Governer no. : 0420021175

Cust. part No. :

Customer-spec. information : MB-FKW Customer Motor : 0M606 Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar 148.5 Tolerance bar

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : \leftarrow 1.0

Prestroke mm 1.75 : +- 0.05 Tolerance mm

test only : + - 0.10

Rack travel in mm: 21.00 Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. 1

°NW after s.o.d. : 16.5 : +- 0.20 Tolerance Check

tolerance °NW : + - 0.30

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.35 : + 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 39.0

Tolerance cm3/1000 strokes : +- 0.5	t control lever
Check tolerance	position degree : 50.0
cm3/1000s. : +- 1.5	rack travel mm : 8.70 Rated speed rpm : 2700
Spreed	+
Tolerance cm3/1000 strokes : 2.5	rack travel mm : 1.00 Tolerance mm : +- 1.00 Rated speed rpm : 3000
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 290	Rated speed rpm : 1100
Rack travel in mm: 7.30	T CRT mm max. : 1.95
Tolerance mm : +- 0.10 Del. quantity	†
cm3/1000 strokes : 8.5	LOW IDLE
Tolerance cm3/1000 strokes : +- 0.5	‡
Spreed	+ control lever
Tolerance cm3/1000 strokes : 1.0	position degree : 10.5
CID/ TODO STICKES . 1.0	tolerance degree : + 2.0
(D) OFFERING OF THE FORTON PURP	Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Rated speed rpm : 290
WITH GOVERNOR	rack travel mm : 7.30
IDLE STAGE	SET IDLE AUXILIARY SPRING
	Rated speed rpm : 400
Deal Association (CDF)	+ rack travel mm : 6.00
Rack travel in mm: 6.25 Tolerance mm: + 0.25	Tolerance mm : + 0.10
- Total di Rocalita	rack travel mm : 3.00
FILL LOAD DELTHEDY AT FILL LOAD CTOD	t Rated speed rpm : 700
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 50
Rated speed rpm : 1100 - Ref. pressure -	Load pick-up
ALDA / ADA hPa : 1100 -	Rated speed rpm : 220
Del. quantity - cm3/1000 strokes : 39.0 -	
Tolerance -	CRT mm min. :> 8.50
cm3/1000 strokes : + 0.5 - Check tolerance -	Rated speed rpm : 1100
cm3/1000s. : + 1.5	CRT mm max. : 1.95
Spreed - Tolerance -	rack travel mm : 7.30
cm3/1000 strokes : 2.5	rack travel mm : 7.30 Rated speed rpm : 290
Check tolerance - cm3/1000s. : 3.0 -	•
GIB/ 10005. : 5.0	
DATES OPEN	- TORQUE CONTROL
RATED SPEED -	- Rated crood nom - 4400
	- Rated speed rpm : 1100 - rack travel mm : 13.35
4	Tolerance mm : + 0.05

Rated speed rpm : 2000 rack travel mm : 12.70 Tolerance mm : + 0.15 Rated speed rpm : 2500 rack travel mm : 12.10 Tolerance mm : + 0.15	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2500
ADJUST NEGATIVE TORQUE CONTROLL Rated speed rpm : 500 rack travel mm : 12.50 Tolerance mm : + 0.15 Rated speed rpm : 900 rack travel mm : 13.10 Tolerance mm : + 0.15 ADJUSTMENT TEST ADA/ALDA	Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2500 Spreed Del. quantity cm3/1000 strokes : 39.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000 strokes : 3.0 ADJUST NEGATIVE TORQUE CONTROLL
CETTAV	
Rated speed rpm : 1100 Ref. pressure ALDA / ADA hPa : 940 rack travel mm : -0.10 Tolerance mm : + 0.10 MEASUREMENT Rated speed rpm : 1100	Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 33.3 Tolerance cm3/1000 strokes : + 0.8 Check tolerance cm3/1000s. : + 1.8 Tolerance
Ref. pressure ALDA / ADA hPa : 900 rack travel mm : -0.40 Tolerance mm : + 0.10	cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0
Rated speed rpm : 1100 Ref. pressure ALDA / ADA hPa : 750 rack travel mm : -1.50 Tolerance mm : + 0.20	Rated speed rpm : 900 Pel. quantity cm3/1000 strokes : 37.8 Tolerance cm3/1000 strokes : + 0.8 Check tolerance
FUEL DELIVERY CHARACTERISTICS	cm3/1000S. : +- 1.8 Spreed
Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2000 Del. quantity cm3/1000 strokes : 40.3 Tolerance cm3/1000 strokes : + 0.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0
Check tolerance cm3/1000s. : + 1.8 Spreed	HIGH IDLE Rated speed rpm : 2700 rack travel mm : 8.70

Tolerance mm	: +- 0.20
Del. quantity cm3/1000 strokes	: 20.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: + 3.0
Tolerance	
cm3/1000 strokes Check tolerance	: 2.5
cm3/1000s.	: 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm Del. quantity	: 20.10
cm3/1000 strokes Spreed	: 50.0
Tolerance	
cm3/1000 strokes Check tolerance	: 6.0
cm3/1000s.	: 6.0
LOW IDLE Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Check tolerance cm3/1000s. Spreed Check tolerance cm3/1000s.	: 290 : 7.30 : ← 0.10 : 9.5 : ← 2.3 : 1.5
SETTING/TESTING EL REGULATION (ELR)	ECTRONIC IDLE
control lever position degree tolerance degree Rated speed rpm	: 10.5 : ← 2.0 : 315
Rack travel in mm	
Tolerance mm Del. quantity	: +- 0.70
cm3/1000 strokes Tolerance	: 34.0
	: + 4.0

Current A : 1.80

control lever position degree : 50.0 Rated speed rpm : 3000

Rack travel in mm : 1.00 Tolerance mm : + 1.00

Current shortduration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

Adjustment of the control-rod travel sensor

control lever position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 19.10.94 Test oil : ISO 4113

Combination No. : 0400076955

Injection pump

Pump designation : PES6M55C32ORS203

EP type number : 0410056982

Governor

Governer design. : RSF315/2500M76 Governer no. : 0420021174

Cust. part No. :

Customer—spec. information Customer : MB-PKW Motor : OM606 Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75Tolerance mm : $\leftarrow 0.05$

test only : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

°NW after s.o.d. : 16.5 Tolerance : + 0.20 Check

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 13.35 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 39.0

Tolerance cm3/1000 strokes : + 0.5	control lever
Check tolerance cm3/1000s. : + 1.5	position degree : 50.0
Spreed	- rack travel mm : 8.70 - Rated speed rpm : 2700
4,700	- rack travel mm : 1.00
Tolerance cm3/1000 strokes : 2.5	- Tolerance mm : +- 1.00 - Rated speed rpm : 3000
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 300	Rated speed rpm : 1100
Rack travel in mm: 7.30	CDT 4 OF
Tolerance mm : +- 0.10	- CRT mm max. : 1.95
Del. quantity	• •
cm3/1000 strokes : 8.5	LOW IDLE
Tolerance	LOW TOLE
cm3/1000 strokes : + 0.5	
Spreed	control lever
Tolerance	position degree : 10.5
cm3/1000 strokes : 1.0	tolerance degree : +- 2.0
I	totel ance degree . + 2.0
\mathbf{I}	Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 300
WITH GOVERNOR	rack travel mm : 7.30
	rack cravec mm . 7.50
	SET IDLE AUXILIARY SPRING
IDLE STAGE	OF INFE WONTETWIN OF WIND
<u> </u>	Rated speed rpm : 400
1	rack travel mm : 6.00
Rack travel in mm: 6.25	Tolerance mm : + 0.10
Tolerance mm : + 0.25	
+	rack travel mm : 3.00
	Rated speed rpm : 700
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 50
±	
Rated speed rpm : 1100	Load pick-up
Ref. pressure	
ALDA / ADA hPa : 1100	Rated speed rpm : 220
Del. quantity cm3/1000 strokes : 39.0	OPT 1
Tolerance	CRT mm min. $:>8.50$
cm3/1000 strokes : +- 0.5	Poted around man a 1100
Check tolerance	Rated speed rpm : 1100
cm3/1000s. : +- 1.5	CRT mm max. : 1.95
Spreed	CRT mm max. : 1.95
Tolerance	rack travel mm : 7.30
cm3/1000 strokes : 2.5	
Check tolerance	Rated speed rpm : 300
cm3/1000s. : 3.0	
<u> </u>	
	TORQUE CONTROL
RATED SPEED +	
+	Rated speed rpm : 1160
<u></u>	rack travel mm : 13.35
†	
+	Tolerance mm : +- 0.05

	+ Tolerance
Rated speed rpm : 2000	+ cm3/1000 strokes : 2.5
rack travel mm : 12.70	+ Check tolerance
Tolerance mm : +- 0.15	Check tolerance : 3.0
Pated speed row . 2500	T Def management
Rated speed rpm : 2500 rack travel mm : 12.10 Tolerance mm : + 0.15	Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2500
Tolerance mm : + 0.15	+ Rated speed rpm · 2500
	+ Spreed
	- + Del. quantity
ADJUST NEGATIVE TORQUE CONTROLL	+ cm3/1000 strokes : 39.5
Rated speed rnm · 500	+ Tolerance
rack travel mm : 12.50	Check tolerance
Rated speed rpm : 500 rack travel mm : 12.50 Tolerance mm : + 0.15	+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 2.0
	Spreed
Rated speed rpm : 900 rack travel mm : 13.10 Tolerance mm : + 0.15	+ Tolerance
rack travel mm : 13.70	+ cm3/1000 strokes : 2.5
roterance min : 7- 0.15	+ Check tolerance + cm3/1000s. : 3.0
	- T clib/10003 3.0
ADJUSTMENT TEST ADA/ALDA	
CETTING	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2500 Spreed Del. quantity cm3/1000 strokes : 39.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 ADJUST NEGATIVE TORQUE CONTROLL
SETTING	Pof pressure
Rated speed rpm : 1100	+ Ref. pressure + ALDA / ADA hPa : 1100
Ref. pressure	+ Rated speed rpm : 500
Ref. pressure ALDA / ADA hPa : 940	Del. quantity
rack travel mm : -0.10 Tolerance mm : + 0.10	Del. quantity cm3/1000 strokes : 33.3
Toterance mm : +- U.10	+ Tolerance
MEASUREMENT	+ cm3/1000 strokes : + 0.8
	+ Check tolerance + cm3/1000S. : +- 1.8
Rated speed rpm : 1100	+ Tolerance
Ref. pressure ALDA / ADA hPa : 900	- cm3/1000 strokes : 2.5
ALDA / ADA hPa : 900	- Check tolerance
rack travel mm : -0.40 Tolerance mm : +- 0.10	+ cm3/1000s. : 3.0
roterance min . 1- 0.10	Ref. pressure
Rated speed rpm : 1100	+ ALDA / ADA hPa : 1100
Ref. pressure	Rated speed rpm : 900
ALDA / ADA hPa : 750	+ Del. quantity
rack travel mm : -1.50 Tolerance mm : + 0.20	+ cm3/1000 strokes : 37.8
Totel differential . TO 0.20	+ Tolerance + cm3/1000 strokes : +- 0.8
	+ Check tolerance
	+ cm3/1000s. : + 1.8
FUEL DELIVERY CHARACTERISTICS	+ Spreed
Ref. pressure	Tolerance
ALDA / ADA hPa : 1100	+ cm3/1000 strokes : 2.5 + Check tolerance
Rated speed rpm : 2000	+ cm3/1000s. : 3.0
Del. quantity	+
cm3/1000 strokes : 40.3	+
Tolerance	†
cm3/1000 strokes : + 0.8 Check tolerance	UTCH TOLE
cm3/1000s. : +- 1.8	#IGH IDLE
Spreed	Rated speed rpm : 2700
	rack travel mm : 8.70
	•

Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Del. quantity	: ← 2.0 : ← 3.0 : 2.5 : 3.0 IVERY : 100 : 20.10
cm3/1000 strokes Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Check tolerance cm3/1000s. Spreed Check tolerance cm3/1000s.	: 300 : 7.30 : ← 0.10 : 9.5 : ← 2.3 : 1.5
SETTING/TESTING EL REGULATION (ELR)	ECTRONIC IDLE
control lever position degree tolerance degree Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: +- 0.70
Tolerance cm3/1000 strokes	

Current A : 1.80

control lever position degree : 50.0 Rated speed rpm : 3000

Rack travel in mm : 1.00 Tolerance mm : + 1.00

Current shortduration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

Adjustment of the control-rod travel sensor

control lever position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1100 rack travel mm : 1.70 Tolerance mm : +-0.20

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400076959T8

Injection pump

Pump designation : PES6M55C32ORS180

EP type number

Governor

Governer design. : RSF315/2300M64-17

Governer no.

Cust. part No. : T8

Customer—spec. information Customer : MB-PKW

Motor : OM603A-D/A (KAT)

Power KW : 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test Lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

inside diameter :

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75
Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

°NW after s.o.d. : 17.0 Tolerance : ← 0.20 Check

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.75 Tolerance mm : +- 0.05

E01

	+	
Del. quantity cm3/1000 strokes : 52	.5	RATED SPEED
Tolerance cm3/1000 strokes : + 0.	.5	control lever position degree : 50.0
Check tolerance cm3/1000s. : +- 1.	.5	rack travel mm : 8.70
Spreed		Rated speed rpm : 2500
Tolerance cm3/1000 strokes : 2.	.5	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 3000
Check tolerance cm3/1000s. : 3.	0 +	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 290	‡	Rated speed rpm : 1000
Rack travel in mm : 6.3 Tolerance mm : + 0.1 Del. quantity		CRT mm max. : 1.75
cm3/1000 strokes : 9. Tolerance	5	LOW IDLE
cm3/1000 strokes : + 0. Spreed	5	control lever
Tolerance cm3/1000 strokes : 1.	o ‡	position degree : 10.0 tolerance degree : +- 2.0
(B) SETTING OF INJECTION PU WITH GOVERNOR	MP +	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 6.30
IDLE STAGE	 <u> </u>	SET IDLE AUXILIARY SPRING
Rack travel in mm : 6.50 Tolerance mm : + 0.10		Rated speed rpm : 400 rack travel mm : 4.80 Tolerance mm : + 0.10
- Color direct film . 1 U. 16	+	rack travel mm : 2.50
FULL LOAD DELIVERY AT FULL I		Rated speed rpm : 630 Tolerance 1/min : +- 50
Rated speed rpm : 1000 Ref. pressure	Ŧ	Load pick-up
ALDA / ADA hPa : 1850 Del. quantity	Ŧ	Rated speed rpm : 200
cm3/1000 strokes : 52.5	5	CRT mm min. :> 7.00
cm3/1000 strokes : +- 0.5 Check tolerance	5	Rated speed rpm : 1000
cm3/1000s. : + 1.5 Spreed	j	CRT mm max. : 1.75
Tolerance cm3/1000 strokes : 2.5 Check tolerance		rack travel mm : 6.30 Rated speed rpm : 290
cm3/1000s. : 3.0	†	
	‡ :	TORQUE CONTROL
	_	

Rated speed rpm	: 1000	+ Rated speed rpm : 2200
rack travel mm		+ Spreed + Del. quantity
Tolerance mm		cm3/1000 strokes : 50.0
		+ Tolerance
Rated speed rpm	: 1600	+ cm3/1000 strokes : +- 1.0
rack travel mm Tolerance mm	: 13.20 : +- 0.10	Check tolerance
roter dance min	0.10	+ cm3/1000s. : +- 2.0 + Spreed
Rated speed rpm	: 2200	+ Tolerance
rack travel mm	: 12.40	+ cm3/1000 strokes : 2.5
Tolerance mm	: ← 0.10	+ Check tolerance
		$\frac{1}{1}$ cm3/1000s. : 3.0
		Ref. pressure
ADJUSTMENT TEST	ADA/ALDA	+ ALDA / ADA hPa : 1100
CETTING		+ Rated speed rpm : 1000
SETTING		+ Del. quantity
Rated speed rpm	: 1000	cm3/1000 strokes : 36.5 Tolerance
Ref. pressure		+ cm3/1000 strokes : +- 0.5
ALDA / ADA hPa		+ Check tolerance
rack travel mm Tolerance mm		+ cm3/1000s. : +- 1.5
rocerance min	: ← 0.20	+ Spreed + Tolerance
MEASUREMENT		+ cm3/1000 strokes : 2.5
		+ Check tolerance
Rated speed rpm	: 1000	+ cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa	: 1100	†
rack travel mm	: -3,15	1
Tolerance mm	: + 0.10	I
	4.000	
Rated speed rpm Ref. pressure	: 1000	+ HIGH IDLE
ALDA / ADA hPa	: 750	Rated speed rpm : 2500
rack travel mm	: -5.00	rack travel mm : 8.70
Tolerance mm	: + 0.20	+ Tolerance mm : + 0.20
		+ Del. quantity
		- cm3/1000 strokes : 32.0
FUEL DELIVERY CHA	RACTERISTICS	
		+ Check tolerance
Ref. pressure		+ cm3/1000s. : +- 3.0
ALDA / ADA hPa	: 1850	+ Spreed
Rated speed rpm Del. quantity	: 1600	Tolerance cm3/1000 strokes : 2.5
cm3/1000 strokes	: 51.0	Check tolerance
Tolerance		+ cm3/1000s. : 3.0
cm3/1000 strokes	: ← 0.8	+
Check tolerance cm3/1000s.	. بـ 10	CTADITALS FUEL SELTUTION
Spreed	: + 1.8	† STARTING FUEL DELIVERY
Tolerance		Rated speed rpm : 100
cm3/1000 strokes		rack travel mm : 20.10
	: 2.5	T TACK CLAVE CIMIT . ZU. IU
Check tolerance		+ Del. quantity
	: 2.5 : 3.0	+ Del. quantity + cm3/1000 strokes : 52.0
Check tolerance cm3/1000s.		Del. quantity cm3/1000 strokes : 52.0 Spreed
Check tolerance		+ Del. quantity + cm3/1000 strokes : 52.0

Check tolerance cm3/1000s.	: 6.0
LOW IDLE	
Rated speed rpm rack travel mm Tolerance mm Check tolerance cm3/1000s. Spreed Check tolerance cm3/1000s.	: 290 : 6.30 : + 0.10 : + 2.3
CHECKING THE IDLE	
degree	: > 37.00
degree	: < 34.50
control lever position degree tolerance degree Rated speed rpm	: +- 2.0
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	13.80 : + 0.70 : 48.5 : + 4.0
Current A	: 1.80
control lever position degree Rated speed rpm	: 50.0 : 2950
Rack travel in mm Tolerance mm	: 0.50 : + 0.50
Current short- duration A	: 3.00
Starting test	
Rated speed rpm	: 100

1.80

Current A

E04

TESTING & SETTING RACK TRAVEL SENSOR **POSITION** Receiving inspection Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa 1850 Set quantity with control lever cm3/1000 strokes : 22.2 Tolerance cm3/1000 strokes : +-0.5 Voltage Volt 1.636 Tolerance Volt : + 0.003Check tolerance Volt : + 0.001Adjustment of the control-rod travel sensor control lever position degree 50.0 Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa 1850 Rack travel in mm Voltage Volt 2.487 Tolerance Volt : + - 0.030Check tolerance Volt : + - 0.060

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400076960T8

Injection pump

Pump designation : PES6M55C32ORS179

EP type number

Governor

Governer design. : RSF315/2000M65-6

Governer no. :

Cust. part No. : T8

Customer-spec. information

Customer : MB-PKW Motor : 0M603A Power KW : 100.0 : OM603A D35 GW

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

148.5 bar Tolerance bar : +- 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

E05

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75 Tolerance mm : +- 0.05

test only : + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. 1

"NW after s.o.d. : 17.0 Tolerance Check

tolerance °NW : + 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.65 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 58.5

	1	
Tolerance cm3/1000 strokes	: + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s.	: + 1.5	rack travel mm : 6.50 Rated speed rpm : 2350
Spreed	Ţ	rack travel mm : 0.50
Tolerance cm3/1000 strokes	: 2.5	Tolerance mm : +- 0.50 Rated speed rpm : 2700
Check tolerance cm3/1000s.	: 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm	: 290	Rated speed rpm : 1000
Rack travel in mm Tolerance mm		CRT mm max. : 1.95
Del. quantity cm3/1000 strokes Tolerance	: 10.0	LOW IDLE
cm3/1000 strokes Spreed Tolerance cm3/1000 strokes	<u> </u>	<pre>control lever position degree : 10.0 tolerance degree : +- 2.0</pre>
(B) SETTING OF INJE	‡	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 6.30 SET IDLE AUXILIARY SPRING
IDLE STAGE Rack travel in mm : Tolerance mm :		Rated speed rpm : 400 rack travel mm : 4.80 Tolerance mm : + 0.10
	<u> </u>	Rated speed rpm : 200
FULL LOAD DELIVERY	+	CRT mm min. : > 7.50
Ref. pressure	1900	Rated speed rpm : 1000
Del. quantity cm3/1000 strokes :	<u> </u>	CRT mm max. : 1.95
Tolerance cm3/1000 strokes :	+	rack travel mm : 6.30 Rated speed rpm : 290
Check tolerance cm3/1000S. : Spreed	+ 1.5	
Tolerance cm3/1000 strokes : Check tolerance	2.5	TORQUE CONTROL
cm3/1000s. :	3.0	Rated speed rpm : 1000 rack travel mm : 13.65 Tolerance mm : +- 0.05
RATED SPEED	†	Rated speed rpm : 1600 rack travel mm : 12.85 Tolerance mm : + 0.10

Rated speed rpm rack travel mm Tolerance mm	: 11.70	+ Spreed + Tolerance - cm3/1000 strokes : 2.5 - Check tolerance - cm3/1000s. : 3.0
ADJUSTMENT TEST	ADA/ALDA	+ Ref. pressure + ALDA / ADA hPa : 1100
SETTING		+ Rated speed rpm : 1000 + Del. quantity
Rated speed rpm Ref. pressure	: 1000	+ cm3/1000 strokes : 41.5 + Tolerance + cm3/1000 strokes : + 0.5
ALDA / ADA hPa rack travel mm	: 1600 : -0.40	+ Check tolerance
Tolerance mm	: + 0.20	+ cm3/1000s. : + 1.5 + Spreed
MEASUREMENT		Tolerance cm3/1000 strokes : 2.5 Check tolerance
Rated speed rpm Ref. pressure	: 1000	cm3/1000s. : 3.0
ALDA / ADA hPa		Ŧ
rack travel mm Tolerance mm		†
Rated speed rpm Ref. pressure	: 1000	HIGH IDLE
ALDA / ADA hPa	· · · · · · · · · · · · · · · · · · ·	Rated speed rpm : 2350
rack travel mm Tolerance mm	: -4.80 : +- 0.20	+ rack travel mm : 6.50 + Tolerance mm : +- 0.20
		Del. quantity cm3/1000 strokes : 22.0
Film per times at		+ Tolerance
FUEL DELIVERY CH	ARACTERISTICS	+ cm3/1000 strokes : + 2.0 + Check tolerance
Ref. pressure ALDA / ADA hPa	: 1900	+ cm3/1000s. : + 3.0 + Spreed
	• 1700	
Rated speed rpm	: 1600	+ Tolerance
Del. quantity		Tolerance cm3/1000 strokes : 2.5
Del. quantity cm3/1000 strokes Tolerance	: 55.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 55.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance
Del. quantity cm3/1000 strokes Tolerance	: 55.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 55.8 : + 0.8 : + 1.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 55.8 : + 0.8 : + 1.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 55.8 : + 0.8 : + 1.8	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance	: 55.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure	: 55.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1900	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 55.8 : ← 0.8 : ← 1.8 : 2.5 : 3.0 : 1900 : 2000	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0
Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity	: 55.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1900 : 2000 : 51.0	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance

Rated speed rpm : 290 6.30 rack travel mm : : +- 0.10Tolerance mm Del. quantity cm3/1000 strokes : 11.8 Check tolerance cm3/1000s.: **←** 2.3 Spreed Check tolerance cm3/1000s. 1.5 CHECKING THE IDLE-SPEED AUXILIARY degree : > 37.00 degree : < 35.50 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever position degree : 10.0 tolerance degree : +-2.0 Rated speed rpm : 315 Rack travel in mm : 12.50 Tolerance mm : + - 0.70Del. quantity cm3/1000 strokes : 48.0 Del. quantity cm3/1000 strokes : 48.0 Tolerance cm3/1000 strokes : \leftarrow 4.0 Tolerance cm3/1000 strokes : +-4.0 Current A 1.80 : control lever position degree : 50.0 Rated speed rpm : 2700 Rack travel in mm: Tolerance mm : **←** 0.50 Current shortduration A 3.00 Starting test Rated speed rpm 100

:

1.80

Adjustment of the control-rod travel sensor

control lever position degree :

50.0

Current A

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 18.10.94 : ISO 4113

Combination No. : 0400076961T8

Injection pump

Pump designation : PES6M55C32ORS157-1

EP type number

Governor

Governer design. : RSF315/2300M65-5

Governer no.

Cust. part No. : T8

Customer-spec. information Customer : MB-PKW Motor : OM603A-

: OM603A-ECE

Power KW

: 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly

: 1688901111

Opening pressure

bar

148.5

Tolerance bar : + 1.5

Test lines

: 1680750014

Outside diameter :

6.0

x inside diameter: 2.0

E09

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm : 2.25 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 21.00

Tolerance mm : + 1.00

: 1-5-3-6-2-: 4 Firing order

: 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

Phasing

*NW after s.o.d. : 19.5

1

Tolerance

: **←** 0.20

Check

tolerance °NW : + 0.30

BASIC SETTING

Rated speed rpm :

1000

Rack travel in mm : 13.95

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 53.0	combined towns
Tolerance cm3/1000 strokes : + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s. : +- 1.5	rack travel mm : 8.30 Rated speed rpm : 2500
Spreed	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 2950
Tolerance cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 1000
2nd speed rpm : 290	CRT mm max. : 1.75
Rack travel in mm: 5.40 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 7.0 Tolerance cm3/1000 strokes : + 0.5 Spreed	control lever position degree : 10.0 tolerance degree : +- 2.0
Tolerance cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 290
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 5.40 SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 360 rack travel mm : 4.30 Tolerance mm : + 0.10
Rack travel in mm: 6.50 Tolerance mm: + 0.10	rack travel mm : 2.50 Rated speed rpm : 560 Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1000 Fef. pressure	Rated speed rpm : 200
ALDA / ADA hPa : 1850 Del. quantity	CRT mm min. : > 7.00
cm3/1000 strokes : 53.0 + Tolerance +	Rated speed rpm : 1000
cm3/1000 strokes : + 0.5 Check tolerance	CRT mm max. : 1.75
cm3/1000s. : +- 1.5 Spreed Tolerance	rack travel mm : 5.40 Rated speed rpm : 290
cm3/1000 strokes : 2.5 Check tolerance	
cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 13.95

- 1		
Tolerance mm	: +- 0.05	+ Tolerance
Rated speed rom	• 1600	Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 36.5 Tolerance cm3/1000 strokes : +- 0.5
rack travel mm	13.20	- cm3/1000s. : 3.0
Rated speed rpm rack travel mm Tolerance mm	: + 0.10	
		Ref. pressure
Rated speed rpm	: 2200	+ ALDA / ADA hPa : 1100
rack travel mm	: 12.40	Rated speed rpm : 1000
Tolerance mm	: + 0.10	+ Del. quantity
		+ cm3/1000 strokes : 36.5 + Tolerance
		+ cm3/1000 strokes : +- 0.5
ADJUSTMENT TEST	ADA/ALDA	Check tolerance
		+ cm3/1000s. : $+$ 1.5
SETTING		+ Spreed
Pated speed nom	. 1000	+ Tolerance
Rated speed rpm Ref. pressure	: 1000	+ cm3/1000 strokes : 2.5 + Check tolerance
ALDA / ADA hPa	: 1600	+ cm3/1000s. : 3.0
		1 01107 10005.
MEASUREMENT		+
.	4000	+
Rated speed rpm	: 1000	+
Ref. pressure ALDA / ADA hPa	: 1100	HTCH TOUT
ALUN / AUN RIFG	. (100	HIGH IDLE
Rated speed rpm	: 1000	Rated speed rpm : 2500
Ref. pressure		+ rack travel mm · 830
ALDA / ADA hPa	: 750	+ Tolerance mm : + 0.20
		+ Del. quantity
		+ cm3/1000 strokes : 32.0
FUEL DELIVERY CHA	APACTERISTICS	+ Tolerance + cm3/1000 strokes : + 2.0
TOLE DELLYCIT ON	######################################	Check tolerance
Ref. pressure		+ cm3/1000s. : +- 3.0
ALDA / ADA hPa		+ Spreed
Rated speed rpm	: 1600	+ Tolerance
Del. quantity cm3/1000 strokes	. 61.0	+ cm3/1000 strokes : 2.5
Tolerance	: 51.6	+ Check tolerance + cm3/1000s. : 3.0
cm3/1000 strokes	: +- 0.8	cm3/1000s. : 3.0
Check tolerance	. 3.0	
cm3/1000s.	: +- 1.8	+ STARTING FUEL DELIVERY
Spreed		+
Tolerance cm3/1000 strokes	: 2.5	+ Rated speed rpm : 100
Check tolerance	. 2.3	<pre>+ rack travel mm : 20.10 + Del. quantity</pre>
cm3/1000s.	: 3.0	- cm3/1000 strokes : 52.0
		+ Spreed
Ref. pressure		+ Tolerance
ALDA / ADA hPa	: 1850	+ cm3/1000 strokes : 6.0
Rated speed rpm Spreed	: 2200	+ Check tolerance
Del. quantity		$\frac{1}{1}$ cm3/1000s. : 6.0
cm3/1000 strokes	: 49.5	Ţ
Tolerance		+
cm3/1000 strokes	: +- 1.0	
Check tolerance		+ LOW IDLE
cm3/1000s.	: ← 2.0	† , , , , , , , , , , , , , , , , , , ,
Spreed		+ Rated speed rpm : 290

rack travel mm 5.40 Tolerance mm : + 0.10Del. quantity cm3/1000 strokes 8.6 Check tolerance cm3/1000s. 2.3 Spreed Check tolerance cm3/1000s. 1.5 CHECKING THE IDLE-SPEED AUXILIARY degree : > 35.50 degree : < 33.00 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever position degree ; 10.0 tolerance degree : +-2.0 Rated speed rpm Tolerance cm3/1000 strokes : + 4.0 Current A 1.80 control lever position degree : 50.0 Rated speed rpm : 2950 Rack travel in mm : 0.50 Tolerance mm : +- 0.50 Current shortduration A 3.00 Starting test Rated speed rpm 100 Current A 1.80 :

Adjustment of the control-rod travel sensor

50.0

control lever position degree :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 18.10.94 : ISO 4113

Combination No. : 0400076962T8

Injection pump

Pump designation : PES6M55C32ORS157

EP type number

Governor

Governer design. : RSF315/2300M64-15

Governer no.

Cust. part No. : T8

Customer-spec. information

Customer : MB-PKW

: OM603A-Abgast. Motor

Power KW

: 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 1469990351

Inlet press. bar :

1.0

Test nozzle holde

assembly

: 1688901111

Opening pressure

bar

148.5

Tolerance bar

1.5

Test lines

: 1680750014

Outside diameter :

6.0

x inside diameter:

2.0

E13

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only

: + 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

1

"NW after s.o.d. :

19.5

Tolerance

: +- 0.20

Check

tolerance °NW

: + - 0.30

BASIC SETTING

Rated speed rpm

1000

Rack travel in mm: 13.95

Tolerance mm : +- 0.05

Del. quantity	+	
cm3/1000 strokes	: 53.0	RATED SPEED
Tolerance cm3/1000 strokes	: + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s.	: + 1.5	rack travel mm : 8.30
Spreed	<u> </u>	Rated speed rpm : 2500
Tolerance cm3/1000 strokes	: 2.5	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 2950
Check tolerance cm3/1000s.	: 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm	: 290	Rated speed rpm : 1000
Rack travel in mm Tolerance mm Del. quantity	: 5.40 : + 0.10	CRT mm max. : 1.75
cm3/1000 strokes Tolerance	: 7.0	LOW IDLE
cm3/1000 strokes Spreed	: ← 0.5	control lever
Tolerance cm3/1000 strokes	: 1.0	position degree : 10.0 tolerance degree : +- 2.0
(B) SETTING OF INWITH GOVERNOR	JECTION PUMP	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 5.40
IDLE STAGE		SET IDLE AUXILIARY SPRING
Rack travel in mm	1	Rated speed rpm : 360 rack travel mm : 4.30 Tolerance mm : +- 0.10
Tolerance mm	: + 0.10	rack travel mm : 2.50
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	Rated speed rpm : 560 Tolerance 1/min : +- 50
Rated speed rpm Ref. pressure	: 1000	Load pick-up
ALDA / ADA hPa Del. quantity	: 1850	Rated speed rpm : 200
cm3/1000 strokes Tolerance	: 53.0	CRT mm min. : > 7.00
cm3/1000 strokes Check tolerance	: + 0.5	Rated speed rpm : 1000
cm3/1000s. Spreed	: ← 1.5	CRT mm max. : 1.75
Tolerance cm3/1000 strokes	: 2.5	rack travel mm : 5.40 Rated speed rpm : 290
Check tolerance cm3/1000s.	: 3.0	
	‡	TORQUE CONTROL

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 13.95 : ← 0.05 : 1600 : 13.20 : ← 0.10	Check tolerance cm3/1000s. : +- 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 36.5 Tolerance
ADJUSTMENT TEST	ADA/ALDA	+ cm3/1000 strokes : + 0.5 + Check tolerance
SETTING		- cm3/1000s. : +- 1.5 - Spreed - Tolerance
Rated speed rpm	: 1000	+ cm3/1000 strokes : 2.5
Ref. pressure ALDA / ADA hPa	: 1600	+ Check tolerance + cm3/1000s. : 3.0
	. 1000	T Clis/10003 3.0
MEASUREMENT		‡
Rated speed rpm Ref. pressure		+
ALDA / ADA hPa	: 1100	HIGH IDLE
Rated speed rpm	: 1000	Rated speed rpm : 2500
Ref. pressure ALDA / ADA hPa	: 750	+ rack travel mm : 8.30 + Tolerance mm : + 0.20
MEDA / NOR III d	. 750	+ Tolerance mm : +- 0.20 + Del. quantity
		+ cm3/1000 strokes : 32.0
FUEL DELIVERY CHA	ARACTERISTICS	Tolerance cm3/1000 strokes : +- 2.0
Ref. pressure		+ Check tolerance + cm3/1000s. : + 3.0
ALDA / ADA hPa		+ Spreed
Rated speed rpm Del. quantity	: 1600	+ Tolerance + cm3/1000 strokes : 2.5
cm3/1000 strokes	: 51.8	+ Check tolerance
Tolerance cm3/1000 strokes	: 0.8	cm3/1000s. : 3.0
Check tolerance		
cm3/1000s. Spreed	: +- 1.8	+ STARTING FUEL DELIVERY
Tolerance		Rated speed rpm : 100
cm3/1000 strokes	: 2.5	+ rack travel mm : 20.10
Check tolerance cm3/1000s.	: 3.0	+ Del. quantity + cm3/1000 strokes : 52.0
		+ Spreed
Ref. pressure ALDA / ADA hPa	: 1850	Tolerance
Rated speed rpm		+ cm3/1000 strokes : 6.0 + Check tolerance
Spreed		- cm3/1000s. : 6.0
Del. quantity cm3/1000 strokes	: 49.5	1
Tolerance		+
cm3/1000 strokes	: + 1.0	+

LOW IDLE

Rated speed rpm 290 rack travel mm 5.40 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s.

2.3

Spreed Check tolerance

cm3/1000s. 1.5

CHECKING THE IDLE-SPEED AUXILIARY

dearee : > 35.50

degree : < 33.00

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree 10.0 tolerance degree : + 2.0 Rated speed rpm

Tolerance

cm3/1000 strokes : +-

Current A 1.80

control lever

position degree 50.0 Rated speed rom 2950

Rack travel in mm: 0.50 Tolerance mm

Current short-

duration A 3.00

Starting test

Rated speed rpm 100

Current A 1.80 :

TESTING & SETTING RACK TRAVEL SENSOR

POSITION

Receiving inspection

Rated speed rpm : 1000 Ref. pressure

ALDA / ADA hPa 1850

Set quantity with

control lever

cm3/1000 strokes : 24.0

Tolerance

cm3/1000 strokes : \leftarrow 0.5 Voltage Volt 1.636 Tolerance Volt : + 0.003

Check tolerance

Volt : + 0.001

Adjustment of the control-rod travel sensor

control lever

position degree 50.0 Rated speed rpm : 1000

Ref. pressure

ALDA / ADA hPa 1850

Rack travel in mm

Voltage Volt 2,502 Tolerance Volt : + 0.030

Check tolerance

Volt : + - 0.060

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400076963T8

Injection pump

Pump designation : PES6M55C32ORS157-1

EP type number

Governor

Governer design. : RSF450/2300M68-1

Governer no.

Cust. part No. : T8

Customer—spec. information Customer : MB-NFZ

Motor : 0M603A (3.0L)

Power KW : 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40Tolerance °C : + 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : ← 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

°NW after s.o.d. : 19.5 Tolerance : + 0.20

Check

tolerance "NW : \leftarrow 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.15 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 48.5

Tolerance cm3/1000 strokes : + 0.5	control lever
Check tolerance cm3/1000s. : + 1.5	position degree : 50.0 rack travel mm : 8.60
Spreed	Rated speed rpm : 2500
Tolerance cm3/1000 strokes : 2.5	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2950
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 450	Rated speed rpm : 1000
Rack travel in mm: 5.50 Tolerance mm: +- 0.10 Del. quantity	CRT mm max. : 1.95
cm3/1000 strokes : 7.0	LOW IDLE
cm3/1000 strokes : + 0.5 Spreed Tolerance cm3/1000 strokes : 1.0	control lever position degree : 12.0 tolerance degree : +- 2.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Setting point w/out bumper spring Rated speed rpm : 450 rack travel mm : 5.50
IDLE STAGE	SET IDLE AUXILIARY SPRING
Rack travel in mm: 6.50 Tolerance mm: + 0.10	Rated speed rpm : 500 rack travel mm : 4.40 Tolerance mm : +- 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.50 Rated speed rpm : 670 Tolerance 1/min : +- 50
Rated speed rpm : 1000 Ref. pressure	Load pick-up
ALDA / ADA hPa : 1850 Del. quantity	Rated speed rpm : 250
cm3/1000 strokes : 48.5	CRT mm min. : > 12.50
cm3/1000 strokes : + 0.5 Check tolerance	Rated speed rpm : 1000
cm3/1000s. : + 1.5 Spreed	CRT mm max. : 1.95
Tolerance cm3/1000 strokes : 2.5	rack travel mm : 5.50 Rated speed rpm : 450
Check tolerance cm3/1000s. : 3.0	
RATED SPEED	TORQUE CONTROL
‡	Rated speed rpm : 1000 rack travel mm : 13.15 Tolerance mm : + 0.05

rack travel mm :	1600 12.50 ← 0.10	Tolerance cm3/1000 strokes Check tolerance	
		cm3/1000s. Spreed	: ← 2.0
Rated speed rpm : rack travel mm : Tolerance mm :	11.60 - 0.10	Tolerance cm3/1000 strokes	: 2.5
rocci di loc nan	. 0.10	Check tolerance cm3/1000s.	: 3.0
		Ref. pressure	
ADJUSTMENT TEST ADA/	ALDA -	ALDA / ADA hPa Rated speed rpm	: 1100
SETTING	-	Del. quantity	
Rated speed rpm :	1000	cm3/1000 strokes Tolerance	: 37.0
Ref. pressure	1500	cm3/1000 strokes	: ← 0.5
rack travel mm :	-0.12 -	Check tolerance cm3/1000S.	: +- 1.5
Tolerance mm :	← 0.10 -	- Spreed - Tolerance	
MEASUREMENT	•	- cm3/1000 strokes	: 2.5
Rated speed rpm :	1000	- Check tolerance - cm3/1000S.	: 3.0
Ref. pressure	<u>ا</u>	- (1157 10003.	. 5.0
ALDA / ADA hPa :		-	
	-2.45	-	
Tolerance mm : 4	⊢ 0.10 -		
Rated speed rpm :	1000	HIGH IDLE	
Ref. pressure		_	
Ref. pressure ALDA / ADA hPa rack travel mm	750	- Rated speed rpm	: 2500
Tolerance mm : +	-4.60 ⊢ 0.20	- rack travel mm - Tolerance mm	: 8.60
rocerance han . 4	- 0.20	- Toterance mm - Del. quantity	: +- 0.20
		- cm3/1000 strokes	: 32.0
FUEL DELIVERY CHARACT	TERISTICS	- Tolerance - cm3/1000 strokes	· +- 20
		- Check tolerance	2.0
Ref. pressure	4		: +- 3.0
ALDA / ADA hPa :		- Spreed	
Rated speed rpm :	1600	- Tolerance	0.5
Del. quantity cm3/1000 strokes :	173	- cm3/1000 strokes	: 2.5
Tolerance	47.3	- Check tolerance - cm3/1000s.	: 3.0
cm3/1000 strokes : +	– o.8 I		. 5.0
Check tolerance	4		
	- 1.8 	STARTING FUEL DELI	VERY
Spreed	+	•	
Tolerance	+	Rated speed rpm	: 100
cm3/1000 strokes :	2.5	rack travel mm	: 20.10
Check tolerance cm3/1000S. :	7.0	Del. quantity	- F2 A
	3.0	cm3/1000 strokes Spreed	: 52.0
Ref. pressure	+	Tolerance	
ALDA / ADA hPa :	1850	cm3/1000 strokes	: 6.0
Rated speed rpm :	2200 +	Check tolerance	4.0
Spreed	†	cm3/1000s.	: 6.0
Del. quantity cm3/1000 strokes :	45.0		
1000 301 0KG2 ;	T		

LOW IDLE

Rated speed rpm 450 rack travel mm 5.50 Tolerance mm 0.10 8.3

Del. quantity cm3/1000 strokes

Check tolerance cm3/1000s. 2.3

Spreed

Check tolerance

cm3/1000s.

1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 35.50

degree : < 33.00

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever

position degree Rated speed rpm 500

Rack travel in mm: 7.60 Tolerance mm **+-** 0.80 Vacuum hPa 600.0 Vacuum hPa

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

12.0 position degree tolerance degree : +-

control lever

position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 Test oil : ISO 4113

Combination No. : 0400076964T8

Injection pump

Pump designation : PES6M55C32ORS171

EP type number

Governor

Governer design. : RSF315/2300M72-4

Governer no.

Cust. part No. : T8

Customer—spec. information Customer : MB-PKW

Motor : OM603-ECE MJ90

Power KW : 80.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : \leftarrow 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 2.05 Tolerance mm : + 0.05

test only : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

*NW after s.o.d. : 19.5 Tolerance : + 0.20 Check

oneck

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.05 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 32.5

	1
Tolerance cm3/1000 strokes : + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s. : +- 1.5	rack travel mm : 8.70 Rated speed rpm : 2500
Spreed	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 2950
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 300	Rated speed rpm : 1000
Rack travel in mm: 6.90 - Tolerance mm: + 0.10 -	CRT mm max. : 1.25
Del. quantity - cm3/1000 strokes : 8.0 -	LOW IDLE
Tolerance cm3/1000 strokes : + 0.5 Spreed - Tolerance	control lever position degree : 14.0 tolerance degree : +- 2.0
cm3/1000 strokes : 1.0 -	- Setting point w/out bumper spring - Rated speed rpm : 300
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 6.90 - SET IDLE AUXILIARY SPRING
IDLE STAGE Rack travel in mm : 6.50 Tolerance mm : + 0.10	- Rated speed rpm : 360 - rack travel mm : 5.40 - Tolerance mm : + 0.10 - rack travel mm : 2.00
FULL LOAD DELIVERY AT FULL LOAD STOP	- Rated speed rpm : 710 - Tolerance 1/min : +- 50
Rated speed rpm : 1000	- Load pick-up
Ref. pressure ALDA / ADA hPa : 1100	- Rated speed rpm : 220
Del. quantity cm3/1000 strokes : 32.5	- CRT mm min. :> 8.50
Tolerance cm3/1000 strokes : +- 0.5 check tolerance	- Rated speed rpm ; 1000
cm3/1000s. : +- 1.5	- CRT mm max. : 1.25 - rack travel mm : 6.90
Tolerance cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 300
cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 12.05 Tolerance mm : + 0.05

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 11.80 : ← 0.10 : 2200 : 11.50 : ← 0.10	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000S. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0
SETTING Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm MEASUREMENT	: 1000 : 950 : −0.10 : ← 0.10	HIGH IDLE Rated speed rpm : 2500 rack travel mm : 8.70 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 24.0
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm Rated speed rpm Ref. pressure	: 900 : -0.60 : ← 0.10	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0
ALDA / ADA hPa rack travel mm Tolerance mm	: 750 : -2.00 : + 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10
FUEL DELIVERY CHA	ARACTERISTICS	+ Del. quantity + cm3/1000 strokes : 52.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 32.8	Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
cm3/1000s. Spreed	: 1.8	LOW IDLE
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 2.5 : 3.0	Rated speed rpm : 300 rack travel mm : 6.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 9.3
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 1100 : 2200	Check tolerance - cm3/1000Strokes: 9.3 - cm3/1000S. : + 2.3 - Spreed - Check tolerance
Del. quantity cm3/1000 strokes	: 35.0	cm3/1000s. : 1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 49.00

degree : < 46.50

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree 14.0 tolerance degree : +-2.0 Rated speed rpm

Rack travel in mm : 13.00 : +- 0.70 Tolerance mm Del. quantity

cm3/1000 strokes : 32.0

Tolerance

cm3/1000 strokes : \leftarrow 4.0

Current A : 1.80

control lever

position degree 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A 3.00

Starting test

Rated speed rpm 100

Current A 1.80 :

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1000

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 : ISO 4113 Test oil

Combination No. : 0400076965T8

Injection pump

Pump designation : PES6M55C32ORS174

EP type number :

Governor

Governer design. : RSF315/2300M72-3

Governer no.

Cust. part No. : T8

Customer-spec. information Customer : MB-PKW

Motor : 0M603-Abgl. MJ90

Power KW : 76.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 1.75 Tolerance mm : **←** 0.05

test only : + 0.10

Rack travel in mm : 21.00 Tolerance mm : +- 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

°NW after s.o.d. : 17.0 : + 0.20 Tolerance Check

tolerance °NW : + 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.45 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 33.0

	-
Tolerance cm3/1000 strokes : + 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s. : + 1.5	rack travel mm : 9.30 Rated speed rpm : 2500
Spreed	rack travel mm : 0.50
Tolerance cm3/1000 strokes : 2.5	Tolerance mm : +- 0.50 Rated speed rpm : 2950
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 300	Rated speed rpm : 1000
Rack travel in mm: 7.10	CRT mm max. : 1.45
Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 8.0	LOW IDLE
Tolerance cm3/1000 strokes : +- 0.5	
Spreed Tolerance	control leverposition degree : 14.0tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	+ Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Rated speed rpm : 300 + rack travel mm : 7.10 +
	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 360 rack travel mm : 5.40 Tolerance mm : +- 0.10
Rack travel in mm: 6.50 Tolerance mm: + 0.10	rack travel mm : 2.50 Rated speed rpm : 670
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 50
Rated speed rpm : 1000	Load pick-up
Ref. pressure ALDA / ADA hPa : 1100	+ Rated speed rpm : 220
Del. quantity cm3/1000 strokes : 33.0	+ CRT mm min. :> 7.00
Tolerance cm3/1000 strokes : +- 0.5	+ Rated speed rpm : 1000
Check tolerance cm3/1000s. : +- 1.5	CRT mm max. : 1.45
Spreed Tolerance cm3/1000 strokes : 2.5	+ rack travel mm : 7.10 + Rated speed rpm : 300
Check tolerance cm3/1000s. : 3.0	<u> </u>
J.U	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 12.45 Tolerance mm : + 0.05

Rated speed rpm rack travel mm Tolerance mm	: 11.90	+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance + cm3/1000s. : +- 2.0
Rated speed rpm rack travel mm Tolerance mm		+ Spreed + Tolerance
Tolerance mm	: +- 0.10	+ cm3/1000 strokes : 2.5 + Check tolerance
		cm3/1000s. : 3.0
ADJUSTMENT TEST	ADA/ALDA	<u> </u>
SETTING		HIGH IDLE
Rated speed rpm	: 1000	+
Ref. pressure ALDA / ADA hPa	. 050	Rated speed rpm : 2500
rack travel mm		+ rack travel mm : 9.30 + Tolerance mm : + 0.20
Tolerance mm	: + 0.10	+ Del. quantity
MEACUDENES		+ cm3/1000 strokes : 24.0
MEASUREMENT		+ Tolerance + cm3/1000 strokes : + 2.0
Rated speed rpm	: 1000	+ Check tolerance
Ref. pressure		+ cm3/1000s. : + 3.0
ALDA / ADA hPa rack travel mm	: 900	+ Spreed
Tolerance mm	: -0.60 : +- 0.10	+ Tolerance + cm3/1000 strokes : 2.5
		+ Check tolerance
Rated speed rpm	: 1000	+ cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa	: 750	†
rack travel mm	: -2.00	STARTING FUEL DELIVERY
Tolerance mm	: +- 0.20	+ OWNERS FORE DELIVERY
		Rated speed rpm : 100 rack travel mm : 20.10
		+ rack travel mm : 20.10 + Del. quantity
FUEL DELIVERY CHA	ARACTERISTICS	cm3/1000 strokes : 52.0
2.5		Spreed
Ref. pressure ALDA / ADA hPa	: 1100	+ Tolerance
Rated speed rpm		cm3/1000 strokes : 6.0 check tolerance
Del. quantity		+ cm3/1000s. : 6.0
cm3/1000 strokes	: 35.3	+
Tolerance cm3/1000 strokes	: ← 0.8	İ
Check tolerance		
cm3/1000s.	: + 1.8	+ LOW IDLE
Spreed Tolerance		t Batad annual must 700
cm3/1000 strokes	: 2.5	+ Rated speed rpm : 300 + rack travel mm : 7.10
Check tolerance		+ Tolerance mm : + 0.10
cm3/1000s.	: 3.0	+ Del. quantity
Ref. pressure		+ cm3/1000 strokes : 9.3 + Check tolerance
ALDA / ADA hPa	: 1100	+ cm3/1000s. : +- 2.3
Rated speed rpm	: 2200	Spreed
Spreed Del. quantity		theck tolerance
cm3/1000 strokes	: 35.5	+ cm3/1000s. : 1.5

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 49.00

degree : < 46.50

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 315

Rack travel in mm : 13.50
Tolerance mm : + 0.70
Del. quantity
cm3/1000 strokes : 33.0

Tolerance

cm3/1000 strokes : +- 4.0

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1000

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400076967T8

Injection pump

Pump designation : PES6M55C32ORS171-1

EP type number :

Governor

Governer design. : RSF315/2300M60-8

Governer no.

Cust. part No. : T8

Customer—spec. information
Customer : MB-PKW
Motor : 0M603-ECE
Power KW : 80.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : \leftarrow 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : +- 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 2.05
Tolerance mm : + 0.05

test only : +- 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

*NW after s.o.d. : 19.5 Tolerance : + 0.20

Check

tolerance "NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.55 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 32.5

	,
Tolerance cm3/1000 strokes : +- 0.5	control lever position degree :
Check tolerance cm3/1000s. : + 1.5	rack travel mm : Rated speed rpm :
Spreed	rack travel mm : Tolerance mm : +-
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm :
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER
2nd speed rpm : 290	Rated speed rpm :
Rack travel in mm: 7.20	CRT mm max. :
Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 7.0	LOW IDLE
Tolerance cm3/1000 strokes : +- 0.5 Spreed Tolerance cm3/1000 strokes : 1.0	control lever position degree : tolerance degree : +-
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Setting point w/out bun Rated speed rpm : rack travel mm :
	SET IDLE AUXILIARY SPRI
IDLE STAGE	Rated speed rpm : rack travel mm : Tolerance mm : +-
Rack travel in mm : 6.50 Tolerance mm : + 0.10	rack travel mm : Rated speed rpm :
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +
Rated speed rpm : 1000	+ Load pick-up
Ref. pressure ALDA / ADA hPa : 1100	Rated speed rpm :
Del. quantity cm3/1000 strokes : 32.5	CRT mm min. :>
Tolerance cm3/1000 strokes : +- 0.5	Rated speed rpm : 1
Check tolerance cm3/1000s. : +- 1.5	CRT mm max. :
Spreed Tolerance cm3/1000 strokes : 2.5	+ rack travel mm : + Rated speed rpm :
Check tolerance cm3/1000s. : 3.0	TOPOUT CONTROL
DATES COURS	TORQUE CONTROL
RATED SPEED	+ Rated speed rpm : 10

9.20 2500 0.50 - 0.50 2950 R POSITION 1000 1.75 14.0 mper spring 290 7.20 ING 360 5.60 0.10 2.50 650 50 220 9.00 1000 1.75 7.20 290 : 1000 : 12.55 : ← 0.05 Rated speed rpm rack travel mm Tolerance mm

50.0

Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 12.40 : ← 0.10 : 2200 : 12.10 : ← 0.10	+ + + + + + + + + + + + + + + + + + +	Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	
SETTING Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm MEASUREMENT		+++++++++++++++++++++++++++++++++++++++	HIGH IDLE Rated speed rpm : 2500 rack travel mm : 9.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 24.0 Tolerance cm3/1000 strokes : + 2.0	
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm Rated speed rpm Ref. pressure ALDA / ADA hPa	: 900 : -0.60 : ← 0.10 : 1000	† † † †	Check tolerance cm3/1000s. : +- 3.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	
rack travel mm Tolerance mm	: -2.00	 	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity	
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1100 : 1400 : 30.8	+++++++++++++++++++++++++++++++++++++++	cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0	
cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 3.0 : 1100 : 2200	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm : 290 rack travel mm : 7.20 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s. : + 2.3 Spreed Check tolerance cm3/1000s. : 1.5	

CHECKING THE IDLE-SPEED AUXILIARY

degree : > 49.00

degree : < 46.00

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : + 2.0 Rated speed rpm : 315

Rack travel in mm : 13.20
Tolerance mm : + 0.40
Tolerance

cm3/1000 strokes : \leftarrow 4.0

Current A : 1.80

control lever

position degree : 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 Tolerance mm : + 0.50

Current short-

duration A : 3.00

Starting test

Rated speed rpm : 100

Current A : 1.80

Adjustment of the control-rod travel sensor

sensor

control lever

position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 18.10.94

Test oil

: ISO 4113

Combination No. : 040007696878

Injection pump

Pump designation : PES6M55C32ORS178

EP type number

Governor

Governer design. : RSF315/2125M64-13

Governer no.

Cust. part No. : T8

Customer-spec. information

Customer : MB-PKW

Motor : 0M603A D35 USA

Power KW

: 100.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly

: 1688901111

Opening pressure

bar

148.5

Tolerance bar

Test lines : 1680750014

Outside diameter :

6.0

x inside diameter: 2.0

F05

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

: 1.75 Prestroke mm

: **←** 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm : 21.00

Tolerance mm : + 1.00

: 1-5- 3- 6- 2-: 4 Firing order

Phasing : 0-60-120-180-240

: -300

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

°NW after s.o.d. :

17.0

1

Tolerance

: +- 0.20

Check

tolerance °NW

: + - 0.30

BASIC SETTING

Rated speed rpm :

1000

Rack travel in mm : 13.75

Tolerance mm : \leftarrow 0.05

Dol montitu	NP to death of the control of the co	+
Del. quantity cm3/1000 strokes	: 60.0	RATED SPEED
Tolerance cm3/1000 strokes	: ← 0.5	control lever position degree : 50.0
Check tolerance cm3/1000s.	: ← 1.5	rack travel mm : 6.70 Rated speed rpm : 2300
Spreed		+
Tolerance cm3/1000 strokes	: 2.5	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 2700
Check tolerance cm3/1000s.	: 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm	: 290	Rated speed rpm : 1000
Rack travel in mm Tolerance mm Del. quantity		CRT mm max. : 1.45
cm3/1000 strokes Tolerance		LOW IDLE
cm3/1000 strokes Spreed Tolerance	: 10.5	control lever + position degree : 10.0
cm3/1000 strokes	: 1.0	tolerance degree : + 2.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 5.75
IDLE STAGE	****	SET IDLE AUXILIARY SPRING
Rack travel in mm	. 5.50	Rated speed rpm : 400 rack travel mm : 3.85
Tolerance mm		+ Tolerance mm : + 0.25 + Load pick-up
FULL LOAD DELIVERY	AT FULL LOAD STOP	Rated speed rpm : 200
Rated speed rpm Ref. pressure	: 1000	+ CRT mm min. : > 7.00
ALDA / ADA hPa Del. quantity	: 1850	Rated speed rpm : 1000
cm3/1000 strokes Tolerance		CRT mm max. : 1.45
cm3/1000 strokes Check tolerance		rack travel mm : 5.75 Rated speed rpm : 290
cm3/1000s. Spreed Tolerance	: +- 1.5	‡
cm3/1000 strokes Check tolerance	: 2.5	TORQUE CONTROL
cm3/1000s.	: 3.0	Rated speed rpm : 1000 rack travel mm : 13.75 Tolerance mm : + 0.05

Rated speed rpm : 1600 rack travel mm : 12.8 Tolerance mm : + 0.1 Rated speed rpm : 2000 rack travel mm : 11.4 Tolerance mm : + 0.1	Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 3.0 : 1100 : 1000
ADJUSTMENT TEST ADA/ALDA	- cm3/1000 strokes	s : +- 0.5
SETTING	- Tolerance - cm3/1000 strokes - Check tolerance - cm3/1000s. - Spreed - Tolerance - cm3/1000 strokes	: + 1.5
Rated speed rpm : 1000 Ref. pressure	+ Tolerance	2.5
ALDA / ADA hPa : 1600	+ cm3/1000 strokes + Check tolerance	
MEASUREMENT	cm3/1000s.	: 3.0
Rated speed rpm : 1000	†	
Ref. pressure	Į	
ALDA / ADA hPa : 1100	1701 701 5	
Rated speed rpm : 1000	+ HIGH IDLE	
Ref. pressure	Rated speed rpm	
ALDA / ADA hPa : 750	+ rack travel mm + Tolerance mm	
	+ Del. quantity	: +- 0.20
FUEL DELIVERY CHARACTERISTI	+ cm3/1000 strokes	: 25.0
FOEL DELIVERY CHARACTERISTI	CS + Tolerance + cm3/1000 strokes	: +- 2.0
Ref. pressure	+ Check tolerance	
ALDA / ADA hPa : 1850 Rated speed rpm : 1600	+ cm3/1000s.	: ← 3.0
Del. quantity	+ Spreed + Tolerance	
cm3/1000 strokes : 56.3	3 + cm3/1000 strokes	: 2.5
Tolerance cm3/1000 strokes : + 0.8	Check tolerance cm3/1000s.	: 3.0
Check tolerance	+	. 5.0
cm3/1000s. : + 1.8		LIVEDY
Spreed Tolerance	STARTING FUEL DE	LIVERY
Spreed Tolerance cm3/1000 strokes : 2.5	STARTING FUEL DE Rated speed rpm	: 100
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	5 STARTING FUEL DE Rated speed rpm rack travel mm	
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0	5 STARTING FUEL DE Rated speed rpm rack travel mm	: 100 : 20.10
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure	STARTING FUEL DE	: 100 : 20.10
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1850	STARTING FUEL DE Rated speed rpm rack travel mm Del. quantity cm3/1000 strokes Spreed Tolerance	: 100 : 20.10 : 52.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed	STARTING FUEL DE	: 100 : 20.10 : 52.0 : 6.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000S. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed Del. quantity	STARTING FUEL DE	: 100 : 20.10 : 52.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed Del. quantity cm3/1000 strokes : 50.0 Tolerance	STARTING FUEL DE	: 100 : 20.10 : 52.0 : 6.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed Del. quantity cm3/1000 strokes : 50.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm rack travel mm Del. quantity cm3/1000 strokes Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.10 : 52.0 : 6.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed Del. quantity cm3/1000 strokes : 50.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm rack travel mm Del. quantity cm3/1000 strokes Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.10 : 52.0 : 6.0
Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1850 Rated speed rpm : 2000 Spreed Del. quantity cm3/1000 strokes : 50.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm rack travel mm Del. quantity cm3/1000 strokes Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.10 : 52.0 : 6.0

rack travel mm 5.75 Tolerance mm 0.15 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s. 2.3 Spreed Check tolerance cm3/1000s. 1.5 CHECKING THE IDLE-SPEED AUXILIARY : > 44.50 dearee degree : < 42.00 SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR) control lever position degree 10.0 tolerance degree : + 2.0 Rated speed rpm Tolerance cm3/1000 strokes : +- 4.0Current A 1.80 control lever position degree : 50.0 Rated speed rpm : 2700 Rack travel in mm: 0.50 Tolerance mm : + - 0.50Current shortduration A 3.00 Starting test Rated speed rpm 100 Current A 1.80 TESTING & SETTING RACK TRAVEL SENSOR

TESTING & SETTING RACK TRAVEL SENSOR
POSITION
Receiving inspection
Rated speed rpm : 1000
Ref. pressure
ALDA / ADA hPa : 1850
Set quantity with
control lever
cm3/1000 strokes : 23.0

Tolerance
cm3/1000 strokes : + 0.5
Voltage Volt : 1.636
Tolerance Volt : + 0.003
Check tolerance
Volt : + 0.001

Adjustment of the control-rod travel sensor

control lever position degree : 50.0 Rated speed rpm : 1000 Ref. pressure ALDA / ADA hPa : 1850

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0400076971T8

Injection pump

Pump designation : PES6M55C32ORS171

EP type number

Governor

Governer design. : RSF315/2300M60-8

Governer no.

Cust. part No. : T8

Customer-spec. information Customer : MB-PKW

Motor : 0M603-ECE Power KW : 80.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

: 1688901111 assembly

Opening pressure

bar 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : +-2.05

test only : **←** 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

"NW after s.o.d. : 19.5 Tolerance : **←** 0.20

Check

tolerance °NW : +- 0.30

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.05 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 32.5

Tolerance cm3/1000 strokes : + 0.5	control lever
Check tolerance cm3/1000s. : +- 1.5	position degree : 50.0 rack travel mm : 8.70
Spreed	Rated speed rpm : 2500
Tolerance cm3/1000 strokes : 2.5	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2950
Check tolerance cm3/1000s. : 3.0	SET IDLE CONTROL LEVER POSITION
2nd speed rpm : 290	Rated speed rpm : 1000
Rack travel in mm : 6.80 Tolerance mm : + 0.10 Del. quantity	CRT mm max. : 1.25
cm3/1000 strokes : 7.0	LOW IDLE
cm3/1000 strokes : + 0.5 Spreed Tolerance	control lever position degree : 14.0
cm3/1000 strokes : 1.0	tolerance degree : + 2.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Setting point w/out bumper spring Rated speed rpm : 290 rack travel mm : 6.80
IDLE STAGE	SET IDLE AUXILIARY SPRING
Rack travel in mm: 6.50	Rated speed rpm : 360 rack travel mm : 5.10 Tolerance mm : +- 0.10
Tolerance mm : + 0.10	
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00 Rated speed rpm : 670 Tolerance 1/min : +- 50
Rated speed rpm : 1000 Fef. pressure	Load pick-up
ALDA / ADA hPa : 1100 Del. quantity	Rated speed rpm : 220
cm3/1000 strokes : 32.5	CRT mm min. : > 8.50
cm3/1000 strokes : + 0.5 Check tolerance	Rated speed rpm : 1000
cm3/1000s. : + 1.5 Spreed	CRT mm max. : 1.25
Tolerance cm3/1000 strokes : 2.5 Check tolerance	rack travel mm : 6.80 Rated speed rpm : 290
cm3/1000s. : 3.0	
RATED SPEED	TORQUE CONTROL
	Rated speed rpm : 1000 rack travel mm : 12.05 Tolerance mm : + 0.05

Dotted annual	4/00	+ Tolerance
Rated speed rpm rack travel mm	: 1400 : 11.80	t cm3/1000 strokes : +- 1.0
Tolerance mm	: ← 0.10	+ Check tolerance + cm3/1000s. : +- 2.0
Datad annual man	. 2200	+ Spreed
Rated speed rpm rack travel mm	: 2200 · 11.50	Tolerance + cm3/1000 strokes : 2.5
Tolerance mm	: + 0.10	+ Check tolerance
		+ cm3/1000s. : 3.0
		†
ADJUSTMENT TEST	ADA/ALDA	- ‡
SETTING		
Rated speed rpm	: 1000	+ HIGH IDLE
Ref. pressure		T Rated speed rpm : 2500
Ref. pressure ALDA / ADA hPa	: 950 : -0.10	+ rack travel mm : 8.70
rack travel mm Tolerance mm	: -0.10 : ← 0.10	Tolerance mm : + 0.20
roterance min	: 0.10	+ Del. quantity + cm3/1000 strokes : 24.0
MEASUREMENT		Tolerance
Ontard and I was	4000	+ cm3/1000 strokes : +- 2.0
Rated speed rpm Ref. pressure	: 1000	+ Check tolerance + cm3/1000s. : + 3.0
ALDA / ADA hPa	: 900	+ cm3/1000S. : + 3.0 + Spreed
rack travel mm	: -0.60	+ Tolerance
Tolerance mm	: ← 0.10	+ cm3/1000 strokes : 2.5
		+ Check tolerance
Rated speed rom	· 1000	1 cm3/1000c · 7.0
Rated speed rpm Ref. pressure		cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa	: 750	- cm3/1000s. : 3.0
Ref. pressure ALDA / ADA hPa	: 750	cm3/1000s. : 3.0 STARTING FUEL DELIVERY
Ref. pressure	: 750	cm3/1000s. : 3.0 STARTING FUEL DELIVERY
Ref. pressure ALDA / ADA hPa	: 750	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	: 750 : -2.00 : + 0.20	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity
Ref. pressure ALDA / ADA hPa	: 750 : -2.00 : + 0.20	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure	: 750 : -2.00 : + 0.20	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0 - Check tolerance
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0 - Check tolerance
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0 - Check tolerance
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8	- cm3/1000s. : 3.0 - STARTING FUEL DELIVERY - Rated speed rpm : 100 - rack travel mm : 20.10 - Del. quantity - cm3/1000 strokes : 52.0 - Spreed - Tolerance - cm3/1000 strokes : 6.0 - Check tolerance
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8 : 2.5	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8 : 2.5 : 3.0	Tolerance mm : 4.00 Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s. : +- 2.3
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s. : + 2.3 Spreed
Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm FUEL DELIVERY CH/ Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Spreed Tolerance cm3/1000s. Ref. pressure ALDA / ADA hPa Rated speed rpm	: 750 : -2.00 : + 0.20 ARACTERISTICS : 1100 : 1400 : 32.8 : + 0.8 : + 1.8 : 2.5 : 3.0 : 1100 : 2200	cm3/1000s. : 3.0 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0 LOW IDLE Rated speed rpm : 290 rack travel mm : 6.80 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 8.3 Check tolerance cm3/1000s. : +- 2.3

CHECKING THE IDLE-SPEED AUXILIARY

degree

:>49.00

degree

: < 46.50

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree 14.0 tolerance degree : +- 2.0 Rated speed rpm : 315

: 13.00 : + 0.70 Rack travel in mm : Tolerance mm Del. quantity 33.0

cm3/1000 strokes : Tolerance

cm3/1000 strokes : +-4.0

Current A 1.80

control lever

position degree 50.0 Rated speed rpm : 2950

Rack travel in mm : 0.50 : **←** 0.50 Tolerance mm

Current short-

duration A 3.00

Starting test

Rated speed rpm 100

Current A 1.80

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 12.10.94

Test oil

: ISO 4113

Combination No. : 0401446150

Injection pump

Pump designation : PE6R130/720RS1506

EP type number : 0411436002

Governor

Governer design. : RQV250...1050R4K

Governer no. : 0421415003

Cust. part No. : 865 020 SKOEVDE E.KO

Customer—spec. information Customer : PENTA

Motor

: TAMD163 P-A

Power KW

: 553.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2417413078

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1688901105

Opening pressure

: + 1.5

Tolerance bar

Test lines

: 1680750089

Outside diameter :

8.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm

: +- 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm: 10.50

Tolerance mm : **←** 0.50

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + - 0.30

Check

tolerance °NW : **←** 0.50

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.70

Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 464.0

Tolerance cm3/1000 strokes	: +- 2.0	control lever
Check tolerance cm3/1000s.	· ← 5.0	position degree : -1 Rated speed rpm : 1205
Spreed Tolerance cm3/1000 strokes	: 13.0	Rack travel in mm: 11.00 Tolerance mm: + 2.50
Check tolerance cm3/1000s.	: 17.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	hPa : 2200 Del. quantity cm3/1000 strokes : 464.0 Tolerance
GUIDE SLEEVE TRAVI	EL	+ cm3/1000 strokes : + 2.0 + Check tolerance
Tolerance mm	: 1.26 : + 0.25	- cm3/1000s. : +- 5.0 - Spreed - Tolerance - cm3/1000 strokes : 13.0 - Check tolerance - cm3/1000s. : 17.0
Rated speed rpm guide sleeve travel mm Tolerance mm		RATED SPEED
Rated speed rpm guide sleeve travel mm Tolerance mm	: 6.42	tolerance degree : +- 4.0 control lever position degree : 119.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm	: 310 : 2.00 : + 0.25	rack travel mm : 13.70 Rated speed rpm : 1105 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm Tolerance mm	: 360 : 2.41 : + 0.25	rack travel mm : 4.00 Rated speed rpm : 1200 Tolerance 1/min : + 15 rack travel mm : 0.50
guide sleeve travel mm	: 570 : 3.54 : + 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1300 LOW IDLE
Rated speed rpm guide sleeve	: 1360 : 13.50	control lever position degree : 74.0 tolerance degree : + 4.0 tolerance degree : + 4.0
GUIDE SLEEVE POSIT	ION	Testing: Rated speed rpm : 250 rack travel mm : 6.65

Tolerance mm : **←** 0.20 Rated speed rpm 150 CRT mm min. : > 7.70 Rated speed rpm : 380 TORQUE CONTROL Rated speed rpm 850 rack travel mm 13.20 Tolerance mm : + 0.15 Rated speed rpm 975 rack travel mm 14.60 Tolerance mm : + 0.20ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm 1050 Pressure hPa 2200 rack travel mm 14.70 Tolerance mm : +- 0.05 **MEASUREMENT** Pressure hPa Rated speed rpm 1050 rack travel mm 8.70 Tolerance mm : + - 0.15Rated speed rpm 1050 Pressure hPa : 1570 5.10 rack travel mm Tolerance mm : + 0.10Pressure hPa 400 0.25 rack travel mm Tolerance mm : + 0.05FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 2200 Rated speed rpm 850 Del. quantity cm3/1000 strokes : 413.0 Tolerance

Check tolerance cm3/1000s.: + 7.0 Spreed Tolerance cm3/1000 strokes : 15.0 Check tolerance cm3/1000s. 19.0 Aneroid pressure Rated speed rpm 500 Del. quantity cm3/1000 strokes : 238.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. : +- 5.0

BREAKAWAY

Rack travel in mm : 13.70
Rated speed rpm : 1105
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Del. quantity
cm3/1000 strokes : 410.0
Tolerance
cm3/1000 strokes : + 20.0
Check tolerance
cm3/1000s. : + 25.0

cm3/1000 strokes : +- 4.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 13.10.94 Test oil : ISO 4113

Combination No. : 0401846992

Injection pump

Pump designation : PE6P110A320RS3266

EP type number : 0411816777

Governor

Governer design. : RQV300...1100PA1182

Governer no. : 0421814110

Cust. part No. : 11030875 P02

Customer-spec. information

Customer : VME

: TD63KBE LAD. L90 Motor

Power KW : 115.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 2417413046

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901101

Opening pressure

bar Tolerance bar

Test lines : 1680750008

Outside diameter : 5.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +-

Prestroke mm 2.45 Tolerance mm

test only : + 0.10

Rack travel in mm: 10.00 Tolerance mm : +- 0.50

: 1-5-3-6-2-: 4 Firing order

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance °NW : + 0.50

BASIC SETTING

Rated speed rpm : 1025

Rack travel in mm: 11.80 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 135.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. : +-3.0

·	-
Spreed	
Tolerance cm3/1000 strokes : 5.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	Rated speed rpm : 1025 Aneroid pressure
cm3/1000s. : 9.0	hPa : 1500
†	Del. quantity
(B) SETTING OF INJECTION PUMP	cm3/1000 strokes : 135.0 Tolerance
WITH GOVERNOR +	cm3/1000 strokes : + 1.0
	Check tolerance cm3/1000s. : +- 3.0
GUIDE SLEEVE TRAVEL	Spreed
Rated speed rpm : 300	Tolerance cm3/1000 strokes : 5.0
guide sleeve	Check tolerance
travel mm : 1.51 Tolerance mm : + 0.25	cm3/1000s. : 9.0
1	
Rated speed rpm : 1172 - guide sleeve	RATED SPEED
travel mm : 8.69 +	
Tolerance mm : + 0.25	control lever
Rated speed rpm : 822	<pre>position degree : 50.0 tolerance degree : +- 4.0</pre>
guide sleeve travel mm : 5.40	•
travel mm : 5.40 + Tolerance mm : + 0.25	control lever position degree : 118.0
+	tolerance degree : +- 4.0
Rated speed rpm : 356 guide sleeve	_
travel mm : 1.99	rack travel mm : 10.80 Rated speed rpm : 1160
travel mm : 1.99 Tolerance mm : + 0.25	Tolerance 1/min : +- 5
Rated speed rpm : 406	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1250
travel mm : 2.42 + Tolerance mm : + 0.25	Tolerance 1/min : +- 15
<u> </u>	rack travel mm : 0.50
Rated speed rpm : 510 guide sleeve	Tolerance mm : + 0.50
travel mm : 3.11	Rated speed rpm : 1330
Tolerance mm : + 0.25	
Rated speed rpm : 1390	LOW IDLE
guide sleeve	
travel mm : 11.50 + Tolerance mm : + 0.50	control lever
Tolerance mm : + 0.50	position degree : 85.0 tolerance degree : +- 4.0
CUIDE OF EDUCATION	-
GUIDE SLEEVE POSITION	control lever
Į.,	position degree : 18.0 tolerance degree : +- 4.0
control lever	•
position degree : -1 Rated speed rpm : 1240	Testing:
<u> </u>	Rated speed rpm : 300
Rack travel in mm: 11.00 + Tolerance mm: + 2.00 +	rack travel mm : 5.80
	Tolerance mm : +- 0.20

Rated speed rpm	: 200
CRT mm min.	: > 8.00
Rated speed rpm	: 370
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1025 : 11.80 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 625 : 12.20 : + 0.15
Rated speed rpm rack travel mm Tolerance mm	: 820 : 12.00 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 625 : 1500 : 12.20 : +- 0.05
MEASUREMENT	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 625 : 9.30 : + 0.20
Rated speed rpm	: 625
Pressure hPa rack travel mm Tolerance mm	: 650 : 2.30 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 90 : 0.25 : + 0.05
FUEL DELIVERY CHAR	PACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 1500 : 625

Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: ← 2.0 : ← 5.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 8.0 : 12.0
Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 625
cm3/1000 strokes	: 89.0
Tolerance cm3/1000 strokes Check tolerance	: ← 1.0
cm3/1000s.	: + 4.0

BREAKAWAY

Rack travel in mm	:	10.80
Rated speed rpm	:	1160
Tolerance 1/min	:	+- 5

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		9.30
Tolerance mm	:	+-	0.20
Del. quantity			
cm3/1000 strokes	:		103.0
Tolerance			
cm3/1000 strokes	:	+-	10.0
Check tolerance			
cm3/1000s.	:	+-	14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 18.10.94

Test oil

: ISO 4113

Combination No. : 0402746909

Injection pump

Pump designation : PES6P120A320RS7236

EP type number : 0412726848

Governor

Governer design. : RQV275...1000PA1001

: -1

Governer no.

: 0421813936

Cust. part No. : CCEP 5116A PROJ.171

Customer-spec. information

Customer : RVI

Motor

: MIDR 063540 J/3

Power KW

: 306.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2417413071

Inlet press. bar : 2.5

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

Tolerance bar

: 208.5 : ← 1.5

Lube oil

: 1409918004

Test Lines : 1680750089

Outside diameter : 8.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm: 13.50 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : +- 0.30

Tolerance Check

tolerance °NW

: **←** 0.50

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm :

600

Rack travel in mm: 13.80

Tolerance mm : + 0.05

		+ Check tolerance	
Del. quantity cm3/1000 strokes	: 310.0	+ cm3/1000s. + Spreed + Tolerance	: +- 4.0
Tolerance cm3/1000 strokes	: + 1.0	cm3/1000 strokes Check tolerance cm3/1000s.	
Check tolerance cm3/1000s.	: + 4.0	+	: 9.0
Spreed		+ RATED SPEED	
Tolerance cm3/1000 strokes :	5.0	control lever position degree	: 302.0
Check tolerance cm3/1000s. :	9.0	tolerance degree	: +- 4.0
2nd speed rpm :	300	rack travel mm Rated speed rpm Tolerance 1/min	: -1.00 : 1070 : +- 5
Rack travel in mm:		+	
Tolerance mm : Del. quantity	+ 0.20	rack travel mm	: -9.70 : 1210
cm3/1000 strokes :	31.0	Rated speed rpm Tolerance 1/min	: + 15
Tolerance cm3/1000 strokes :	÷ 2.0	t rack travel mm	: -13.25
Check tolerance	+- 5.0 ·	Tolerance mm	: ← 0.55
Spreed :	7- 5.0	Rated speed rpm	: 1350
Tolerance cm3/1000 strokes :	8.0	104 704	
Check tolerance	0.0	LOW IDLE	
cm3/1000s. :	12.0		
(B) SETTING OF INJE	CTION PUMP	control lever position degree tolerance degree	
WITH GOVERNOR		Testing:	
GUIDE SLEEVE POSITION	ON -	Rated speed rpm rack travel mm	: 300 : -8.60
	1	Tolerance mm	: ← 0.10
control lever	- 1	- Rated speed rpm	: 200
position degree : Rated speed rpm :	1150	CRT mm max.	: < -7.20
Rack travel in mm : Tolerance mm :		- Rated speed rpm	: 370
FULL LOAD DELIVERY /	AT FILL LOAD STOP	TORQUE CONTROL	
	4	- Rated speed rpm	: 1000
Rated speed rpm : Aneroid pressure	600		: +- 0.10
hPa :	1000	- Rated speed rpm	: 500 : -5.50
Del. quantity cm3/1000 strokes :	310.0	- rack travel mm - Tolerance mm	: −5.50 : + 0.10
Tolerance	4	-	
cm3/1000 strokes :	T 1.0	• •	
	·		

ANEROID/ALTITUDE		+ Che - cm3
COMPENSATOR TEST		+ Ane
		+ hPa + Rat
SETTING		- Rat - Del
		+ cm3
Rated speed rpm Pressure hPa	: 500	+ Tol
Pressure hPa	: 1000	+ cm3 + Che
MEASUREMENT		cm3
Pressure hPa	: -	I —
Rated speed rpm	: 500	+ BRE
rack travel mm	: -5.00 : +- 0.20	+
Tolerance mm	: + 0.20	† Rac
Rated speed rpm	: 500	Rat
•		+ Tol
Pressure hPa	: 240	+
rack travel mm Tolerance mm	: -3.80 : +- 0.20	†
TOTOL CALLOC TIME	. , 0.20	STA
Pressure hPa	: 600	+ ***
rack travel mm	: -0.95	+ De <u>l</u>
Tolerance mm	: +- 0.05	+ cm3
		+ Tole
START CUT-OUT		+ Che
Pated speed mm	: < 225	+ cm3
Rated speed rpm Check	: \ 20	1
speed 1/min	: < 245	+
		+ -
FUEL DELIVERY CHA	RACTERISTICS	— † LOW
Amonaid mass		+ Rate
Aneroid pressure hPa	: 1000	+ rack
Rated speed rpm	: 1000	+ Tole + Del.
Del. quantity		+ cm3/
cm3/1000 strokes	: 287.0	+ Tole
Tolerance cm3/1000 strokes	: ← 3.0	t cm3/
Check tolerance		+ Chec
cm3/1000s.	: +- 6.0	+ Spre
loopoid specime		+ Tole
Meroid pressure Pa		+ cm3/
Rated speed rpm	500	+ Chec
Del. quantity cm3/1000 strokes		+
m3/1000 strokes	: 138.0	+
Tolerance cm3/1000 strokes	: +- 5.0	†
	· +- 3.0	İ
heck tolerance		
Check tolerance	: 8.0	1
theck tolerance m3/1000s. preed	: +- 8.0	‡
theck tolerance m3/1000s. Spreed olerance m3/1000 strokes		‡

Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 152.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
BREAKAWAY
Rack travel in mm : -1.00 Rated speed rpm : 1070 Tolerance 1/min : +- 5
STARTING FUEL DELIVERY
Del. quantity cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000S. : + 14.0
LOW IDLE
Rated speed rpm : 300 rack travel mm : -8.50 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 31.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 : ISO 4113 Test oil

Combination No. : 0402746953

Injection pump

Pump designation : PES6P120A320RS7294

EP type number : 0412726895

Governor

Governer design. : RQV275...1000PA1001

Governer no. : 0421813936

Cust. part No. : CCEP-5135 66-213

Customer-spec. information

: RVI Customer

Motor : MIDR 063540 J/3

Power KW : 306.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 : + 2.0 Tolerance °C

Overflow valve : 2417413071

Inlet press. bar : Tolerance bar

Test nozzle holde

assembly : 1688901105

Opening pressure

208.5 bar Tolerance bar

Lube oil : 1409918004

Test lines : 1680750089 x inside diameter :

Outside diameter : 8.0

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : ← 1.0

Prestroke mm Tolerance mm 4.55 : + 0.05

test only : +- 0.10

Rack travel in mm : 13.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : +- 0.30 Tolerance

Check

tolerance °NW : + 0.50

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 600

F22

Rack travel in mm Tolerance mm		guide sleeve travel mm : 2.33 Tolerance mm : +- 0.20
Del. quantity cm3/1000 strokes	: 310.0	Rated speed rpm : 393 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	travel mm : 2.99 Tolerance mm : + 0.20
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 490 guide sleeve travel mm : 3.81 Tolerance mm : + 0.20
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1370 guide sleeve
Check tolerance cm3/1000s.	: 9.0	travel mm : 11.50 Tolerance mm : + 0.50
2nd speed rpm	: 300	GUIDE SLEEVE POSITION
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes	: + 0.20	control lever position degree : - 1 Rated speed rpm : 1185
Tolerance cm3/1000 strokes	+	Rack travel in mm : 12.60
Check tolerance cm3/1000s. Spreed	: + 6.0	Tolerance mm : + 1.30
	†	
Tolerance cm3/1000 strokes	: 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
	+	Rated speed rpm : 600 Aneroid pressure
cm3/1000 strokes Check tolerance	: 12.0	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : +- 1.0
cm3/1000 strokes Check tolerance cm3/1000s.	: 12.0 JECTION PUMP	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN. WITH GOVERNOR	: 12.0 JECTION PUMP	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INL WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 12.0 JECTION PUMP EL : 275 : 1.29	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INL WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm	: 12.0 JECTION PUMP : 275 : 1.29 : + 0.10	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF IN. WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 12.0 JECTION PUMP : 275 : 1.29 : + 0.10 : 1086 : 8.46 : + 0.10 : 773	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000 strokes : 9.0
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INL WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 12.0 JECTION PUMP : 275 : 1.29 : + 0.10 : 1086 : 8.46 : + 0.10	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0 rack travel mm : -1.00
cm3/1000 strokes Check tolerance cm3/1000s. (B) SETTING OF INL WITH GOVERNOR GUIDE SLEEVE TRAVE Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 12.0 JECTION PUMP : 275 : 1.29 : + 0.10 : 1086 : 8.46 : + 0.10 : 773 : 6.09	Rated speed rpm : 600 Aneroid pressure hPa : 1000 Del. quantity cm3/1000 strokes : 310.0 Tolerance cm3/1000strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0 RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0

rack travel mm Rated speed rpm Tolerance 1/min	: 1210	+++++++++++++++++++++++++++++++++++++++	rack travel mm Tolerance mm	: ← 0.20
rack travel mm Tolerance mm Rated speed rpm	: +- 0.55	† † †	Pressure hPa rack travel mm Tolerance mm	: 600 : −0.95 : ← 0.05
LOW IDLE			START CUT-OUT	
		<u>†</u>	Rated speed rpm Check	: < 225
control lever position degree tolerance degree		Ŧ	speed 1/min	· · · · · · · · · · · · · · · · · · ·
Testing:		‡	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	• 300	1	Aneroid pressure hPa	: 1000
rack travel mm Tolerance mm	: -8.60	Ŧ	Rated speed rpm	: 1000
Tolerance mm	: + 0.10	+	Del. quantity	
Rated speed rpm	: 200	Ī	cm3/1000 strokes Tolerance	: 287.0
•		+	cm3/1000 strokes	: ← 3.0
CRT mm max.	: < -7.20	1	Check tolerance cm3/1000s.	: +- 6.0
Rated speed rpm	370	+		. 1 0.0
			Aneroid pressure	4000
TORQUE CONTROL		T I	hPa Rated speed rpm	: 1000 : 500
Datad annual annu		+	Del. quantity	
Rated speed rpm	: 600	İ	cm3/1000 strokes Tolerance	: 138.0
Rated speed rpm	: 1000	+	cm3/1000 strokes	: +- 5.0
Tolerance mm	: + 0.10	†	Check tolerance	: +- 8.0
Rated speed rpm	: 500 : -5.50	I	cm3/1000S. Spr eed	: +- 8.0
rack travel mm Tolerance mm	: -5.50	+	Tolerance	
roterance nin	: - 0.10	1	cm3/1000 strokes Check tolerance	
		+	cm3/1000s.	: 12.0
ANEROID/ALTITUDE COMPENSATOR TEST		†	Anonoid massure	
00. # 2.10/11/01/ 1201		Į	Aneroid pressure hPa	: -
SETTING		+	Rated speed rpm	: 500
SELLTING		Ī	Del. quantity cm3/1000 strokes	: 152.0
Rated speed rpm		+	Tolerance	
Pressure hPa	: 1000	1	cm3/1000 strokes Check tolerance	: ← 1.0
MEASUREMENT		Ŧ	cm3/1000S.	: +- 4.0
Pressure hPa		+		
Rated speed rpm		Į	BREAKAWAY	
rack travel mm Tolerance mm	: -5.00	+	•••	
roterance min	: +- 0.20	İ	Rack travel in mm	1 00
Rated speed rpm	: 500	<u>†</u>	Rated speed rpm Tolerance 1/min	: 1070
Pressure hPa	: 240	Ţ	TOTEL WHILL	.

STARTING FUEL DELIVERY

Del. quantity cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : + 10.0

12.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

300 Rated speed rpm rack travel mm -8.60 Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 31.0 Tolerance cm3/1000 strokes 2.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 18.10.94

Test oil

: ISO 4113

Combination No. : 0402946010

Injection pump

Pump designation : PES6P120A320RS8028

EP type number : 0412926021

Governor

Governer design. : RQV275...1175PA1101K

Governer no. : 0421815982

Cust. part No. : CCEP 5133 A 66-193

Customer-spec. information

Customer

: RVI

Motor

: MIDR 060226 M51

Power KW

: 158.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 2417413078

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1688901105

Opening pressure

: 208.5

Tolerance bar

: +- 1.5

Lube oil

: 1409918004

Test lines

: 1680750089

Outside diameter : 8.0

x inside diameter :

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.95 Tolerance mm : +- 0.05

test only

: + 0.10

Rack travel in mm : 13.00 Tolerance mm

: +- 0.50

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance

: + - 0.30

Check

tolerance °NW : + 0.50

BEGINNING OF DELIVERY DIFFERENCE

betw. rack trav.

and maximum rack

travel

21.00

Difference ° CS

2.00

12.30

Tolerance

: + 0.75

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm	: 1175	+ Rated speed rpm : 389 + guide sleeve
Rack travel in m Tolerance mm		travel mm : 2.39 Tolerance mm : + 0.20
Del. quantity cm3/1000 strokes		+ Rated speed rpm : 439 + guide sleeve + travel mm : 3.01 + Tolerance mm : + 0.20
Tolerance cm3/1000 strokes	s : + 1.0	+ Rated speed rpm : 550
Check tolerance cm3/1000s.	: + 4.0	+ guide sleeve + travel mm : 3.92 + Tolerance mm : +- 0.20
Spreed Tolerance cm3/1000 strokes	5.0	Rated speed rpm : 1650 guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 9.0	
2nd speed rpm	: 275	+ GUIDE SLEEVE POSITION
Rack travel in m Tolerance mm Del. quantity	: +- 0.20	control lever position degree : - 1 Rated speed rpm : 1430
cm3/1000 strokes Tolerance		+ Rack travel in mm : 11.20
cm3/1000 strokes Check tolerance cm3/1000s.	: ← 2.0 : ← 6.0	Tolerance mm : + 2.00
Spreed Tolerance cm3/1000 strokes	. 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: 8.0 : 12.0	+ Rated speed rpm : 1175 + Aneroid pressure + hPa : 1600 + Del. quantity
(B) SETTING OF IN WITH GOVERNOR	VUECTION PUMP	- cm3/1000 strokes : 270.0 - Tolerance - cm3/1000 strokes : +- 1.0
CHARLE OF THE TON		+ Check tolerance + cm3/1000s. : + 4.0
GUIDE SLEEVE TRAV		+ Spreed + Tolerance
Rated speed rpm guide sleeve		+ cm3/1000 strokes : 5.0 + Check tolerance
travel mm Tolerance mm	: 1.01 : ← 0.10	+ cm3/1000s. : 9.0
Rated speed rpm guide sleeve	: 1230	RATED SPEED
travel mm Tolerance mm	: 8.95 : + 0.10	control lever
Rated speed rpm guide sleeve	: 877	position degree : 295.0 tolerance degree : + 4.0
travel mm Tolerance mm	: 6.51 : +- 0.20	rack travel mm : -1.00 Rated speed rpm : 1250 Tolerance 1/min : +- 5

	1		
rack travel mm : Rated speed rpm : 1 Tolerance 1/min : +-	1420	Pressure hPa : 320 rack travel mm : -4.70 Tolerance mm : +- 0.20	
rack travel mm : - Tolerance mm : +- Rated speed rpm : 1	-13.20 0.55 550	Pressure hPa : 560 rack travel mm : -2.95 Tolerance mm : +- 0.05	
LOW IDLE	1	START CUT-OUT	
control lever position degree : tolerance degree : +-	245.0 4.0	Rated speed rpm : < 215 Check speed 1/min : < 235	
Testing:	‡	FUEL DELIVERY CHARACTERISTICS	_
Rated speed rpm : rack travel mm : Tolerance mm : +-	275 -7.40 0.10	Aneroid pressure hPa : 1600 Rated speed rpm : 650	
Rated speed rpm :	200	Del. quantity cm3/1000 strokes : 262.0	
CRT mm max. : <	- 6.50 [∓]	Tolerance cm3/1000 strokes : + 3.0	
Rated speed rpm :	400	Check tolerance cm3/1000s. : +- 6.0	
TORQUE CONTROL	+	Aneroid pressure hPa : -	
Rated speed rpm : 1	175	Rated speed rpm : 500 Del. quantity	
Rated speed rpm : (rack travel mm : - Tolerance mm : +-	550 -1.70 0.10	cm3/1000 strokes : 148.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0	
Rated speed rpm : 3 rack travel mm : - Tolerance mm : +-	-2.95	cm3/1000S. : +- 4.0 BREAKAWAY	
ANEROID/ALTITUDE COMPENSATOR TEST	 ‡	Rack travel in mm : -1.00 Rated speed rpm : 1250 Tolerance 1/min : + 5	
SETTING	‡		
Rated speed rpm : 11 Pressure hPa : 16	75 500	STARTING FUEL DELIVERY	_
MEASUREMENT	‡	Del. quantity cm3/1000 strokes : 100.0	
rack travel mm : -	- 500 5.40 0.20	Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0	
Rated speed rpm : 11	75 ‡		

1 ^		*	۸,	,-
LO	W	1	UL	Æ

Rated speed rpm : 275
rack travel mm : -7.40
Tolerance mm : + 0.20
Del. quantity
cm3/1000 strokes : 40.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s. : + 6.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 Test oil : ISO 4113

Combination No. : 0403244036

Injection pump

Pump designation : PES4MW100/720RS1519

: -3 P type pumber : 0/43

EP type number : 0413204018

Governor

Governer design. : RQV300...1300MW132

: -5

Governer no. : 0420083308

Cust. part No. : 0240740902

Customer—spec. information Customer : MB-NFZ Motor : OM364LA

Power KW : 77.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5Tolerance bar : \leftarrow 1.5

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : ← 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50 Check

tolerance °NW : ← 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.50 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance		<u>1</u> .	
cm3/1000s.	: 6.0	rack travel mm Rated speed rpm	: 4.00
Del. quantity cm3/1000 strokes	: 12.0	Tolerance 1/min	: + 15
Tolerance cm3/1000 strokes		rack travel mm Tolerance mm	: 0.50 : + 0.50
Check tolerance cm3/1000s.		Rated speed rpm	
Spreed Tolerance	. 7 - 4.5	100 70 5	
cm3/1000 strokes Check tolerance	: 3.5	+ LOW IDLE	
cm3/1000s.	: 5.5	control lever	. 70.0
(B) SETTING OF IN	JIECTTONI DIEMO	<pre>position degree tolerance degree</pre>	: + 4.0
WITH GOVERNOR	MCC/10/4 FORF	Testing:	
		Rated speed rpm	: 300
GUIDE SLEEVE POSI	TION	+ rack travel mm + Tolerance mm	: 4.00 : + 0.10
contról lever		Rated speed rpm	: 200
position degree Rated speed rpm	: - 1 : 1400	CRT mm min.	: > 4.50
Rack travel in mm Tolerance mm		TORQUE CONTROL	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	Rated speed rpm rack travel mm Tolerance mm	: 1300 : 11.50 : + 0.05
Rated speed rpm Aneroid pressure	: 1300	Rated speed rpm	: 750
hPa Del. quantity	: 700	Rated speed rpm rack travel mm Tolerance mm	: + 0.10
cm3/1000 strokes Tolerance	: 95.0	ANISOTO (AL TITUOS	
cm3/1000 strokes Check tolerance	: + 1.0	+ ANEROID/ALTITUDE + COMPENSATOR TEST	
cm3/1000s. Spreed	: ← 3.0	T SETTING	
Tolerance cm3/1000 strokes	: 3.5	+ Rated speed rpm	: 500
Check tolerance cm3/1000S.	: 6.0	Pressure hPa rack travel mm Tolerance mm	: - : 11.50 : + 0.05
RATED SPEED		MEASUREMENT	
control lever position degree tolerance degree	: 112.0 : + 4.0	Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 500 : 10.70 : ← 0.10
rack travel mm Rated speed rpm		Rated speed rpm	: 500
	: +- 5	T Pressure hPa	: 290

rack travel mm Tolerance mm	: 11.25 : ← 0.10
Pressure hPa	: 250
rack travel mm	: 11.00
Tolerance mm	: ← 0.10
START CUT-OUT	
Rated speed rpm Check	: < 200
speed 1/min	: < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa	: 700
Rated speed rpm	
Del. quantity cm3/1000 strokes	: 86.0
Tolerance cm3/1000 strokes	: + 1.5
Check tolerance cm3/1000s.	: +- 4.0
Spreed	• • •••
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 7.0
Aneroid pressure	
hPa	: -
Rated speed rpm Del. quantity	
cm3/1000 strokes Tolerance	: 66.0
cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: ← 3.0
BREAKAWAY	
Rack travel in mm	: 10.50
Rated speed rpm Tolerance 1/min	: 1345 : +- 5
TOTAL TOTAL	
STARTING FUEL DELI	IVERY
Rated speed rpm	
Del. quantity	
cm3/1000 strokes Tolerance	: 140.0
cm3/1000 strokes	: ← 5.0

Check tolerance cm3/1000s. : +- 8.0

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 : ISO 4113 Test oil

Combination No. : 0403244039

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

EP type number : 0413204018

Governor

Governer design. : RQV300...1200MW132

: -7

: 0420083312 Governer no.

Cust. part No. : 0250748402

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA Power KW : 77.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

: 1688901101 assembly

Opening pressure

208.5 Tolerance bar 1.5

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter : 3.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 4.55 Tolerance mm

test only : **←** 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance : + - 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 11.50 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance cm3/1000s.	: 6.0	+ Rack travel in mm : 16.50 + Tolerance mm : +- 1.30
Del. quantity cm3/1000 strokes	: 12.0	Total di loc iran
Tolerance	•	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Check tolerance	: ← 2.0	Rated speed rpm : 1200
cm3/1000s. Spreed	: +- 4.5	+ Aneroid pressure
Tolerance		+ hPa : 700 + Del. quantity
cm3/1000 strokes Check tolerance	: 3.5	+ cm3/1000 strokes : 95.0 + Tolerance
cm3/1000s.	: 5.5	+ cm3/1000 strokes : +- 1.0
(D) 0====		+ Check tolerance + cm3/1000s. : + 3.0
(B) SETTING OF IN WITH GOVERNOR	VJECTION PUMP	+ Spreed + Tolerance
		- cm3/1000 strokes : 3.5 - Check tolerance
GUIDE SLEEVE TRAN	/EL	cm3/1000s. : 6.0
Rated speed rpm	: 350	
guide sleeve travel mm	: 1.15	+ RATED SPEED
Tolerance mm	: + 0.25	+ control lever
Rated speed rpm	: 1254	+ position degree : 112.0
guide sleeve travel mm	: 7.92	tolerance degree : +- 4.0
Tolerance mm	: ← 0.25	rack travel mm : 10.50 Rated speed rpm : 1245
Rated speed rpm guide sleeve	: 671	Tolerance 1/min : + 5
travel mm Tolerance mm	: 3.58 : + 0.25	rack travel mm : 4.00
		+ Rated speed rpm : 1365 + Tolerance 1/min : ← 15
Rated speed rpm guide sleeve	: 721	+ rack travel mm : 0.50
travel mm Tolerance mm	: 4.06 : +- 0.25	† Tolerance mm : + 0.50
		+ Rated speed rpm : 1450
Rated speed rpm guide sleeve		LOW IDLE
travel mm Tolerance mm	: 5.51 : + 0.25	‡
Rated speed rpm guide sleeve	: 1690	control lever position degree : 70.0
travel mm Tolerance mm	: 13.50	tolerance degree : + 4.0
loterance mm	: ← 0.50	† Testing:
GUIDE SLEEVE POSIT	TTON	Rated speed rpm : 300 rack travel mm : 4.00
=	· - · · ·	rack travel mm : 4.00 Tolerance mm : + 0.10
control lever	1	Rated speed rpm : 200
position degree Rated speed rpm	: - 1 : 1400	+ CRT mm min. :> 4.50
		+

		+	Spreed	
TORQUE CONTROL			Tolerance cm3/1000 strokes	: 5.0
Rated speed rpm rack travel mm Tolerance mm	: 1200 : 11.50 : + 0.05	† †	Check tolerance cm3/1000s. Aneroid pressure	: 7.0
Rated speed rpm rack travel mm Tolerance mm	: 11.50	+++++++++++++++++++++++++++++++++++++++	hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 66.0
ANEROID/ALTITUDE COMPENSATOR TEST			cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 3.0
SETTING		‡	BREAKAWAY	
Rated speed rom Pressure hPa rack travel mm Tolerance mm	: 700 : 11.50		Rack travel in mm Rated speed rpm Tolerance 1/min	: 1245
MEASUREMENT		<u> </u>	***************************************	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: 10.70	‡	STARTING FUEL DEL: Rated speed rpm Del. quantity	: 100
Rated speed rpm	: 500	‡	cm3/1000 strokes Tolerance	
Pressure hPa rack travel mm Tolerance mm	: 290 : 11.25 : +- 0.10	† †	cm3/1000 strokes Check tolerance cm3/1000S.	: +
Pressure hPa rack travel mm Tolerance mm	: 250 : 11.00 : + 0.10	† + + + +	LOW IDLE	
START CUT-OUT			Del. quantity cm3/1000 strokes	: 12.0
Rated speed rpm	: < 200	‡	Tolerance cm3/1000 strokes	: +- 2.0
Check speed 1/min	: < 220	‡	Check tolerance cm3/1000s. Spreed	: +- 4.5
FUEL DELIVERY CHA	RACTERISTICS	 ‡	Tolerance cm3/1000 strokes	: 3.5
Aneroid pressure hPa Rated speed rpm Del. quantity		† †	Check tolerance cm3/1000s.	: 5.5
cm3/1000 strokes Tolerance		‡		
cm3/1000 strokes Check tolerance	-	‡		
cm3/1000s.	: +- 4.0	+		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 14.10.94 : ISO 4113

Combination No. : 0403246034

Injection pump

Pump designation : PES6MW100/720RS1517

: -2

EP type number

: 0413206019

Governor

Governer design. : RQV300...1300MW132

Governer no.

: 0420083291

Cust. part No. : 0200744802

Customer-spec. information Customer : MB-NFZ

Motor

: 0M366LA

Power KW : 177.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve

: 1419992198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 1688901101

Opening pressure

bar

208.5

Tolerance bar

Test lines

: 1680750089

Outside diameter :

8.0

x inside diameter : 3.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +-1.0

Prestroke mm 4.55 Tolerance mm : +- 0.05

test only : + - 0.10

Rack travel in mm : 21.00

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + - 0.50

Check

tolerance °NW : +- 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm : 14.40 Tolerance mm

: + 0.05

Del. quantity cm3/1000 strokes : 133.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

4.0

Spreed

Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: 4.0 	Rated speed rpm : 1780 guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance cm3/1000s.	+	control lever position degree : - 1 Rated speed rpm : 1400
Spreed Tolerance cm3/1000 strokes Check tolerance	1	Rack travel in mm : 12.00 Tolerance mm : +- 2.00
cm3/1000s.	: 5.5	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	Rated speed rpm : 1300 Aneroid pressure hPa : 1200
GUIDE SLEEVE TRAV	/EL	Del. quantity cm3/1000 strokes : 133.0 Tolerance
Rated speed rpm guide sleeve	: 300	cm3/1000 strokes : +- 1.0 Check tolerance
travel mm Tolerance mm	: 1.02 : + 0.25	cm3/1000s. : +- 4.0 Spreed
Rated speed rpm guide sleeve	+	Tolerance cm3/1000 strokes : 4.0 Check tolerance
travel mm Tolerance mm	: 6.70 : + 0.25	cm3/1000s. : 7.5
Rated speed rpm guide sleeve	+	RATED SPEED
travel mm Tolerance mm	: 4.76 : + 0.25	control lever position degree : 120.0
Rated speed rpm guide sleeve	+	tolerance degree : +- 4.0
travel mm Tolerance mm	: 2.25 : + 0.25	rack travel mm : 13.40 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm	: 540 +	rack travel mm : 4.00 Rated speed rpm : 1495
Tolerance mm	: ← 0.25	Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm	: 710 +	rack travel mm : 0.50 Tolerance mm : +- 0.50 Rated speed rpm : 1600
Tolerance mm	: + 0.25	
Rated speed rpm guide sleeve travel mm	: 1683	LOW IDLE
Tolerance mm	: + 0.25	control lever position degree : 82.0

tolerance degree : +- 4.0 +	
Testing:	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 200 CRT mm min. : > 5.00	Aneroid pressure hPa : 1200 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 132.0 Tolerance cm3/1000 strokes : +- 2.0
<u> </u>	Check tolerance cm3/1000S. : +- 5.0
TORQUE CONTROL	Spreed Tolerance
Rated speed rpm : 1300 rack travel mm : 14.40 Tolerance mm : + 0.05	cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
Rated speed rpm : 750 - rack travel mm : 14.40 - Tolerance mm : +- 0.10	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 46.0
ANEROID/ALTITUDE COMPENSATOR TEST	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
SETTING	cm3/1000s. : +- 3.0
Rated speed rpm : 500 Pressure hPa : 1200 rack travel mm : 14.40 Tolerance mm : +- 0.10 MEASUREMENT	BREAKAWAY Rack travel in mm : 13.40 Rated speed rpm : 1345 Tolerance 1/min : + 5
Pressure hPa : - Rated speed rpm : 500 rack travel mm : 9.40 Tolerance mm : + 0.05	STARTING FUEL DELIVERY
Rated speed rpm : 500	Rated speed rpm : 100 Del. quantity
Pressure hPa : 800 + rack travel mm : 13.70 + Tolerance mm : + 0.10	cm3/1000 strokes : 160.0 Tolerance cm3/1000 strokes : +- 5.0 Check tolerance
Pressure hPa : 450 rack travel mm : 11.30 Tolerance mm : + 0.10	cm3/1000s. : +- 8.0
START CUT-OUT	LOW IDLE
Rated speed rpm : < 200 Check	Del. quantity cm3/1000 strokes : 12.0 Tolerance
speed 1/min : < 220	cm3/1000 strokes : +- 2.0 Check tolerance
+	cm3/1000s. : +- 4.5

3.5

Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. :

5.5

G11

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 Test oil : ISO 4113

Combination No. : 0403246036

Injection pump

Pump designation : PES6MW100/720RS1517

EP type number : 0413206019

Governor

Governer design. : RQV300...1300MW132

: -4

: 0420083299 Governer no.

Cust. part No. : 0240744402

Customer-spec. information Customer : MB-NFZ Motor : 0M366LA Power KW : 155.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1419992198

Inlet press. bar :

Test nozzle holde

assembly : 1688901101

Opening pressure

208.5 Tolerance bar : + 1.5

Test lines : 1680750089

Outside diameter : 8.0 x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ___

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +-

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : ← 0.50

Tolerance Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm: 13.50 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

3.0

Spreed

Tolerance cm3/1000 strokes	3.5	‡	Rated speed rpm : 1780 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s.	: 6.0	[Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	Ŧ	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance		Ŧ	control lever position degree : - 1
cm3/1000s. Spreed Tolerance		Ī	Rated speed rpm : 1400 Rack travel in mm : 13.00
cm3/1000 strokes Check tolerance cm3/1000S.	: 5.5	‡	Tolerance mm : +- 2.00
		‡	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF I	NJECTION PUMP	‡	Rated speed rpm : 1300 Aneroid pressure hPa : 1000
GUIDE SLEEVE TRA	VEL	— <u> </u>	Del. quantity cm3/1000 strokes : 120.0
Rated speed rpm guide sleeve	: 300	‡	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
travel mm Tolerance mm	: 1.02 : + 0.25	+	cm3/1000s. : +- 3.0 Spreed
Rated speed rpm guide sleeve		‡	Tolerance cm3/1000 strokes : 3.5 Check tolerance
travel mm Tolerance mm	: 6.70 : ← 0.25	+	cm3/1000s. : 6.0
Rated speed rpm guide sleeve		- ‡	RATED SPEED
travel mm Tolerance mm	: 4.76 : + 0.25	‡	control lever
Rated speed rpm guide sleeve		Ŧ	position degree : 118.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 2.25 : ← 0.25	‡	rack travel mm : 12.50 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve		‡	rack travel mm : 4.00
travel mm Tolerance mm	: 2.50 : ← 0.25	‡	Rated speed rpm : 1485 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve		‡	rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm Tolerance mm	: 3.03 : + 0.25	‡	Rated speed rpm : 1550
Rated speed rpm guide sleeve travel mm		1	LOW IDLE
travel mm Tolerance mm	: 12.00 : +- 0.25	† †	control lever position degree : 72.0

tolerance degree : +- 4.0 Testing:	Check speed 1/min : < 220
Rated speed rpm : 300 rack travel mm : 3.80 Tolerance mm : +- 0.10	FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : 1000
Rated speed rpm : 200	Rated speed rpm : 750
CRT mm min. : > 4.50	Del. quantity cm3/1000 strokes : 120.0 Tolerance
TORQUE CONTROL	cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rpm : 1300 rack travel mm : 13.50 Tolerance mm : + 0.05	→ cm3/1000S. : ← 4.0 → Spreed → Tolerance → cm3/1000 strokes : 5.5
	Check tolerance cm3/1000s. : 7.0
Rated speed rpm : 750 rack travel mm : 13.50 Tolerance mm : + 0.10	Aneroid pressure
Rated speed rpm : 600 rack travel mm : 13.50 Tolerance mm : + 0.10	Aneroid pressure hPa : 1000 Rated speed rpm : 750 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000 strokes : 7.0 Aneroid pressure hPa : 1000 Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 123.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST	cm3/1000 strokes : +- 1.5 Check tolerance cm3/1000s. : +- 4.0
SETTING	Aneroid pressure hPa : -
Rated speed rpm : 500 Pressure hPa : 1000 rack travel mm : 13.50	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 52.0 Tolerance
Tolerance mm : +- 0.05	cm3/1000 strokes : +- 1.0 Check tolerance
MEASUREMENT	cm3/1000s. : +- 3.0
Pressure hPa : - Rated speed rpm : 500 rack travel mm : 10.00 Tolerance mm : + 0.10	BREAKAWAY
Rated speed rpm : 500	Rack travel in mm : 12.50 Rated speed rpm : 1345 Tolerance 1/min : +- 5
Pressure hPa : 600 rack travel mm : 12.60 Tolerance mm : + 0.10	Toterance 1/min : +- 5
Pressure hPa : 300 rack travel mm : 10.80 Tolerance mm : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 150.0
START CUT-OUT	+ Tolerance + cm3/1000 strokes : + 5.0
Rated speed rpm : < 200	+ Check tolerance + cm3/1000s. : + 8.0

LOW IDLE

Del. quantity		
cm3/1000 strokes	:	12.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 17.10.94 Test oil : ISO 4113

Combination No. : 0403246038

Injection pump

Pump designation : PES6MW100/720RS1517

: -2

EP type number : 0413206019

Governor

Governer design. : RQV300...1300MW132

: -10

Governer no. : 0420083315

Cust. part No. : 0250743902

Customer—spec. information Customer : MB-NFZ Motor : 0M366LA

Power KW : 155.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.50

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1780 guide sleeve travel mm : 13.50
Check tolerance cm3/1000s. : 6.0	Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes : 12.0 Tolerance	GUIDE SLEEVE POSITION
cm3/1000 strokes : +- 2.0 Check tolerance	control lever position degree : - 1
cm3/1000s. : +- 4.5 Spreed Tolerance	Rated speed rpm : 1400 Rack travel in mm : 13.00
cm3/1000 strokes : 3.5 Check tolerance	Tolerance mm : + 2.00
cm3/1000s. : 5.5	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1300 Aneroid pressure hPa : 1000
	- + Del. quantity
GUIDE SLEEVE TRAVEL	+ cm3/1000 strokes : 120.0 + Tolerance
Rated speed rpm : 300 guide sleeve	- cm3/1000 strokes : +- 1.0 - Check tolerance
travel mm : 1.02	+ cm3/1000s. : $+$ 3.0
Tolerance mm : + 0.25	+ Spreed + Tolerance
Rated speed rpm : 1354 guide sleeve	+ cm3/1000 strokes : 3.5 + Check tolerance
travel mm : 6.71	cm3/1000s. : 6.0
Tolerance mm : ← 0.25	<u> </u>
Rated speed rpm : 1090 guide sleeve	RATED SPEED
travel mm : 4.70	-
Tolerance mm : + 0.25	+ control lever + position degree : 118.0
Rated speed rpm : 490 guide sleeve	tolerance degree : +- 4.0
travel mm : 2.25	Track travel mm : 12.50
Tolerance mm : + 0.25	+ Rated speed rpm : 1345 + Tolerance 1/min : +- 5
Rated speed rpm : 540 guide sleeve	rack travel mm : 4.00
travel mm : 2.54 Tolerance mm : + 0.25	+ Rated speed rpm : 1485
	+
Rated speed rpm : 690 guide sleeve	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
travel mm : 2.97 Tolerance mm : + 0.25	+ Rated speed rpm : 1550
Rated speed rpm : 1683 guide sleeve	LOW IDLE
travel mm : 12.00	+
Tolerance mm : + 0.25	+ control lever + position degree : 72.0

tolerance degree : +- 4.0	+ Check
Testing:	+ speed 1/min : < 220
	<u> </u>
Rated speed rpm : 300	→ FUEL DELIVERY CHARACTERISTICS
rack travel mm : 3.80	1
rack travel mm : 3.80 Tolerance mm : +- 0.10	T Annual annual
Total Ce min . To U. IU	+ Aneroid pressure
	+ hPa : 1000
Rated speed rpm : 200	+ Rated speed rpm : 750
	+ Del. quantity
CRT mm min. : > 4.50	+ cm3/1000 strokes : 120.0
CN 14.30	T CIID/ 1000 Strokes : 120.0
	+ Tolerance
	+ cm3/1000 strokes : +- 1.5
TORQUE CONTROL	+ Check tolerance
	+ cm3/1000s. : +- 4.0
Rated speed rpm : 1300	
rated speed (pill : 1300	+ Spreed
rack travel mm : 13.50 Tolerance mm : +- 0.05	† Tolerance
Tolerance mm : +- 0.05	+ cm3/1000 strokes : 5.5
	+ Check tolerance
Rated speed rpm : 750	om7/1000c . 7.0
nock though my 47.50	+ cm3/1000\$. : 7.0
rack travel mm : 13.50	†
rack travel mm : 13.50 Tolerance mm : + 0.10	+ Aneroid pressure
	+ hPa : 1000
Rated speed rpm · 600	
nock travel as 47.00	+ Rated speed rpm : 600
Rated speed rpm : 600 rack travel mm : 13.50 Tolerance mm : +- 0.10	† Del. quantity
Tolerance mm : + 0.10	+ cm3/1000 strokes : 123.0
	+ Tolerance
	+ cm3/1000 strokes : + 1.5
ANEROID/ALTITUDE	
	+ Check tolerance
COMPENSATOR TEST	+ cm3/1000S. : + 4.0
	+
	+ Aneroid pressure
SETTING	hno 1000
OLI I III d	+ hPa : 1000
.	+ Rated speed rpm : 1300
Rated speed rpm : 500	+ Del. quantity + cm3/1000 strokes : 104.0
Pressure hPa : 1000	+ cm3/1000 strokes · 104.0
rack travel mm : 13.50	+ Tolerance
Toloropeo m	
Tolerance mm : + 0.05	+ cm3/1000 strokes : + 1.5
	+ Check tolerance
MEASUREMENT	+ cm3/1000s. : $+$ 3.0
	1
Pressure hPa : -	Anancid macause
	+ Aneroid pressure
Rated speed rpm : 500	+ hPa : -
rack travel mm : 10.00 Tolerance mm : +- 0.10	+ Rated speed rpm : 500
Tolerance mm : +- 0.10	+ Del. quantity
	+ cm3/1000 strokes : 52.0
Rated speed rpm : 500	
nateu speed i piii : 500	+ Tolerance
	+ cm3/1000 strokes : +- 1.0
Pressure hPa : 600	+ Check tolerance
	Check tolerance
rack travel mm : 12.60	+ Check tolerance + cm3/1000S. : + 3.0
rack travel mm : 12.60 Tolerance mm : + 0.10	cm3/1000s. : +- 3.0
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300	
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80	cm3/1000s. : +- 3.0
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80	cm3/1000s. : +- 3.0
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300	cm3/1000s. : +- 3.0 BREAKAWAY
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80 Tolerance mm : + 0.10	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50 Rated speed rpm : 1345
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50 Rated speed rpm : 1345
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80 Tolerance mm : + 0.10	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80 Tolerance mm : + 0.10 START CUT-OUT	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50 Rated speed rpm : 1345
rack travel mm : 12.60 Tolerance mm : + 0.10 Pressure hPa : 300 rack travel mm : 10.80 Tolerance mm : + 0.10	cm3/1000s. : +- 3.0 BREAKAWAY Rack travel in mm : 12.50 Rated speed rpm : 1345

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance cm3/1000s. : +-8.0

LOW IDLE

Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0

Check tolerance

4.5

cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s.

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.10.94 Test oil : ISO 4113

Combination No. : 0403446317

Injection pump

Pump designation : PES6MW100/320RS1214

: -1

EP type number : 0413406224

Governor

Governer design. : RQV275...1250MW115K

Governer no. : 0420083994

Cust. part No. :

Customer-spec. information

Customer : RVI

Motor : MIDR 060226 W

Power KW : 151.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Overflow valve : 2417413033

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1680750008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.25 Tolerance mm : + 0.05

test only $: \leftarrow 0.10$

Rack travel in mm : 18.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance °NW : \leftarrow 0.75

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 14.15

Rack travel in mm : 14.15 Tolerance mm : \leftarrow 0.05 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 119.0

Tolerance cm3/1000 strokes	: + 1.0	guide sleeve travel mm : 3.92 Tolerance mm : +- 0.25
Check tolerance cm3/1000s.	: + 3.0 ‡	Rated speed rpm : 1650 guide sleeve
Spreed Tolerance		travel mm : 13.50 Tolerance mm : + 0.50
cm3/1000 strokes Check tolerance	: 3.5	GUIDE SLEEVE POSITION
	: 6.0	control lever
Del. quantity cm3/1000 strokes Tolerance	: 20.0	position degree : - 1 Rated speed rpm : 1350
cm3/1000 strokes : Check tolerance	+	Rack travel in mm : 16.50 Tolerance mm : + 1.30
cm3/1000s. Spreed Tolerance	: ← 4.5	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : Check tolerance	+	Rated speed rpm : 1250
cm3/1000s. :	: 5.0	Aneroid pressure hPa : 1000 Del. quantity
(B) SETTING OF INJE WITH GOVERNOR	ECTION PUMP	cm3/1000 strokes : 119.0 Tolerance
GUIDE SLEEVE TRAVEL		<pre>cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0</pre>
000000000000000000000000000000000000000	+	Spreed
Rated speed rom :	275	
Rated speed rpm : guide sleeve	+	Tolerance cm3/1000 strokes : 3.5
guide sleeve travel mm :	275 1.00 + 0.25	Tolerance
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve	1.00 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm :	1.00 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 6.0 RATED SPEED
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve	1.00 + 0.25 1344 + 9.99 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 6.0
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm :	1.00 + 0.25 1344 + 9.99 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0 rack travel mm : -1.00
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Tolerance mm : Rated speed rpm : Rated speed rpm : Rated speed rpm :	1.00 + 0.25 1344 9.99 + 0.25 924 6.77	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 RATED SPEED control lever position degree : 302.0 tolerance degree : 4.0
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Rated speed rpm : guide sleeve travel mm :	1.00 + 0.25 1344 9.99 + 0.25 924 6.77 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 6.0 RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0 rack travel mm : -1.00 Rated speed rpm : 1305 Tolerance 1/min : + 5 rack travel mm : -10.10 Rated speed rpm : 1465
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : Rated speed rpm : Rated speed rpm :	1.00 + 0.25 1344 9.99 + 0.25 924 6.77 + 0.25 390 2.39	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0 RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0 rack travel mm : -1.00 Rated speed rpm : 1305 Tolerance 1/min : + 5 rack travel mm : -10.10 Rated speed rpm : 1465 Tolerance 1/min : + 15
guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm : Rated speed rpm : guide sleeve travel mm : Tolerance mm :	1.00 + 0.25 1344 9.99 + 0.25 924 6.77 + 0.25 390 + 0.25	Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000S. : 6.0 RATED SPEED control lever position degree : 302.0 tolerance degree : + 4.0 rack travel mm : -1.00 Rated speed rpm : 1305 Tolerance 1/min : + 5 rack travel mm : -10.10 Rated speed rpm : 1465

acutusi I.v.an		‡	Tolerance mm	: +- 0.05
control lever position degree tolerance degree	: 244.0 e : + 4.0	‡	START CUT-OUT	and the first of the second second second second second second second second second second second second second
Testing:		‡	Rated speed rpm Check	
Rated speed rpm rack travel mm Tolerance mm	: 275 : -8.10	† †	speed 1/min	: < 245
		‡	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm	: 200	†	Aneroid pressure hPa	: 1000
CRT mm min.	: > -7.50	Ţ	Rated speed rpm Del. quantity	: 700
TORQUE CONTROL		+	cm3/1000 strokes Tolerance	
Rated speed rpm	: 1250	1	cm3/1000 strokes Check tolerance	
rack travel mm Tolerance mm	: 14.15	+	cm3/1000s. Spreed	: ← 4.0
Rated speed rpm rack travel mm Tolerance mm	: 700 : -0.80	‡	Tolerance cm3/1000 strokes Check tolerance	: 5.0
Tolerance mm	: ← 0.05	‡	cm3/1000s.	: 7.0
Rated speed rpm	: 700 -5.50	+	Aneroid pressure	4000
rack travel mm Tolerance mm	: + 0.10	Ŧ	hPa Rated speed rpm Del. quantity	: 1000 : 700
Rated speed rpm rack travel mm Tolerance mm	: 350 : -1.60	Ţ	cm3/1000 strokes Tolerance	: 60.0
Tolerance mm	: +- 0.40	‡	cm3/1000 strokes Check tolerance	
ANEROID/ALTITUDE		 ‡	cm3/1000s.	: +- 7.5
COMPENSATOR TEST		‡	Aneroid pressure	:
SETTING		‡	Rated speed rpm Del. quantity	: 500
Rated speed rpm Pressure hPa	: 1250 : 1000	‡	cm3/1000 strokes Tolerance	
	: 1000	‡	cm3/1000 strokes Check tolerance	
MEASUREMENT		‡	cm3/1000s.	: +- 3.0
Pressure hPa Rated speed rpm rack travel mm		‡	BREAKAWAY	
Tolerance mm	· + 0.20	Ŧ		
Rated speed rpm	: 1250	‡	Rack travel in mm Rated speed rpm Tolerance 1/min	
Pressure hPa rack travel mm	: 200 : -2.35	Ī	TOTEL WILLE IVIIIII	
Tolerance mm	: +- 0.15	‡	STARTING FUEL DELI	
Pressure hPa rack travel mm	: 300 : -1.75	‡	Rated speed rpm	
633				

rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 95.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance
cm3/1000s. : + 13.0

LOW IDLE

Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 18.10.94 Edition Test oil : ISO 4113

Combination No. : 0403446319

Injection pump

Pump designation : PES6MW100/320RS1216

EP type number : 0413406223

Governor

Governer design. : RQV275...1250MW124K

: 0420083989 Governer no.

Cust. part No. :

Customer—spec. information

Customer : RVI

Motor : MIDR 060226 U

Power KW : 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 2417413033

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901101

Opening pressure

208.5 Tolerance bar

Test Lines : 1680750008

Outside diameter : 6.0 x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : + - 0.10

Rack travel in mm: 13.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

1

Tolerance : + - 0.50

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

BASIC SETTING

Rated speed rpm 1250

Rack travel in mm : 13.25

Rack travel in mm : 13.25 Tolerance mm : \leftarrow 0.05 : **←** 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 106.0

		† guide sleeve
Tolerance cm3/1000 strokes	; : + 1.0	travel mm : 3.92 Tolerance mm : + 0.25
Check tolerance cm3/1000s.	: ← 3.0	Rated speed rpm : 1650 guide sleeve travel mm : 13.50
Spreed Tolerance		+ travel mm : 13.50 + Tolerance mm : + 0.50 +
cm3/1000 strokes	5.5	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 6.0	t control loven
Del. quantity cm3/1000 strokes Tolerance	: 22.0	control lever position degree : - 1 Rated speed rpm : 1350
cm3/1000 strokes Check tolerance	: ← 2.0	Rack travel in mm : 16.50 Tolerance mm : +- 1.30
cm3/1000s. Spreed	: 4.5	
Tolerance cm3/1000 strokes		FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s.	: 5.0	+ Rated speed rpm : 1250 + Aneroid pressure
(D) CETTALO OF TA	NICOTTON DUMP	+ hPa : - + Del. quantity
(B) SETTING OF IN WITH GOVERNOR	MECITON HOME	+ cm3/1000 strokes : 106.0 + Tolerance
		+ cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAN	VEL	+ Check tolerance + cm3/1000S. : + 3.0 + Spreed
Rated speed rpm guide sleeve	: 275	† Tolerance
travel mm	: 1.00	+ cm3/1000 strokes : 3.5 + Check tolerance
Tolerance mm		cneck toterance cm3/1000s. : 6.0
Rated speed rpm guide sleeve		RATED SPEED
travel mm Tolerance mm	: 9.99 : + 0.25	+
Rated speed rpm guide sleeve	: 924	control lever position degree : 300.0
travel mm	: 6.77	tolerance degree : +- 4.0
Tolerance mm	: + 0.25	rack travel mm : -1.00
Rated speed rpm guide sleeve	: 390	Rated speed rpm : 1310 Tolerance 1/min : +- 5
travel mm	: 2.39	rack travel mm : -9.10
Tolerance mm	: + 0.25	Rated speed rpm : 1465 Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 440	rack travel mm : -12.60
travel mm Tolerance mm	: 3.01 : +- 0.25	+ Tolerance mm : + 0.50 + Rated speed rpm : 1600
Rated speed rpm	: 550	LOW IDLE

control lever position degree : 245.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 275 rack travel mm : -7.20 Tolerance mm : + 0.20 Rated speed rpm : 200 CRT mm min. : > -6.60	Aneroid pressure hPa : - Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 57.0 Tolerance cm3/1000 strokes : + 4.0 Check tolerance cm3/1000s. : + 7.5 BREAKAWAY Rack travel in mm : -1.00
TORQUE CONTROL Rated speed rpm : 1250	Rated speed rpm : 1310 Tolerance 1/min : +- 5
rack travel mm : 13.25 Tolerance mm : + 0.05	STARTING FUEL DELIVERY
Rated speed rpm : 700 - rack travel mm : -1.35 - Tolerance mm : + 0.05	Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity
Rated speed rpm : 700 rack travel mm : -4.50 Tolerance mm : + 0.10	- cm3/1000 strokes : 95.0 - Tolerance - cm3/1000 strokes : +- 10.0 - Check tolerance
Rated speed rpm : 350 rack travel mm : -2.40 Tolerance mm : + 0.40	- cm3/1000s. : +- 13.0
START CUT-OUT	- LOW IDLE
Rated speed rpm : < 230 Check speed 1/min : < 245	Del. quantity cm3/1000 strokes : 22.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance
FUEL DELIVERY CHARACTERISTICS	cm3/1000s. : +- 4.5 Spreed Tolerance
Aneroid pressure hPa : -	cm3/1000 strokes : 3.5 Check tolerance
Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 93.5	cm3/1000s. : 5.0
Tolerance cm3/1000 strokes : + 1.5	
Check tolerance cm3/1000s. : + 4.0 spreed	
Tolerance cm3/1000 strokes : 5.0 Check tolerance	
cm3/1000s. : 7.0 +	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 13,10,94 : ISO 4113

Combination No. : 0403446332

Injection pump

Pump designation : PES6MW100/720RS1131

EP type number

: 0413406123

Governor

Governer design. : RQV300...1300MW50

: -34

Governer no.

: 0420083311

Cust. part No. : 0250748202

Customer-spec. information Customer : MB-NFZ

Motor

: OM 366 A

Power KW

: 110.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

2.0

Overflow valve

: 1419992198

Inlet press. bar :

1.5

Test nozzle holde

: 1688901101 assembly

Opening pressure

bar

Tolerance bar

Test lines

: 1680715089

Outside diameter :

8.0

x inside diameter: 3.0 ഹ്ന x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +-1.0

Prestroke mm 3.75 : + 0.05Tolerance mm

test only : + 0.05

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : **←** 0.50

Check tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm 1300

Rack travel in mm : 9.05 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes :

65.0

Tolerance

cm3/1000 strokes : \leftarrow

1.0

Check tolerance cm3/1000s.

: +-3.0

Spreed

Tolerance cm3/1000 strokes		t
		GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 6.0	‡
Del. quantity		<pre>+ control lever + position degree : - 1</pre>
cm3/1000 strokes Tolerance	: 12.0	Rated speed rpm : 1350
cm3/1000 strokes Check tolerance	: +- 2.0	Rack travel in mm : 16.50
cm3/1000s. Spreed		+ Tolerance mm : + 1.30 +
Tolerance cm3/1000 strokes	: 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance		+ Rated speed rpm : 1300
cm3/1000s.	: 5.5	+ Aneroid pressure + hPa : 700
(D) OFFERNO OF 11		+ Del. quantity
(B) SETTING OF IN	NJECTION PUMP	+ cm3/1000 strokes : 65.0 + Tolerance
		+ cm3/1000 strokes : +- 1.0
GUIDE SLEEVE TRAN	VEL	+ Check tolerance + cm3/1000s. : +- 3.0
Rated speed rpm	: 300	+ Spreed + Tolerance
guide sleeve		+ cm3/1000 strokes : 3.5
travel mm Tolerance mm	: 1.40 : ← 0.25	† Check tolerance
		+ cm3/1000s. : 6.0
Rated speed rpm guide sleeve	: 1353	RATED SPEED
travel mm	: 8.64	T RATED SPEED
Tolerance mm	: + 0.25	t control lever
Rated speed rpm	: 885	position degree : 112.0
guide sleeve travel mm	: 5.01	tolerance degree : + 4.0
Tolerance mm	: +- 0.25	rack travel mm : 8.05
Rated speed rpm	: 355	+ Rated speed rpm : 1345 + Tolerance 1/min : +- 5
guide sleeve travel mm	: 1.96	+
Tolerance mm	: + 0.25	rack travel mm : 4.00 Rated speed rpm : 1420
Rated speed rpm guide sleeve	: 405	Tolerance 1/min : + 15
travel mm	: 2.40	+ rack travel mm : 0.50 + Tolerance mm : +- 0.50
Tolerance mm	: ← 0.25	Rated speed rpm : 1500
Rated speed rpm guide sleeve	: 490	LOW IDLE
travel mm	: 2.86	+
Tolerance mm	: + 0.25	+ control lever
Rated speed rpm guide sleeve	: 1610	position degree : 80.0 tolerance degree : + 4.0
travel mm	: 11.50	+
Tolerance mm	: + 0.50	† Testing:
		I

Rated speed rpm	: 300 +	
rack travel mm Tolerance mm	÷ 6.20 ÷	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm	: 200	Aneroid pressure
CRT mm min.	: > 7.50	hPa : 700 Rated speed rpm : 750 Del. quantity
TORQUE CONTROL		cm3/1000 strokes : 65.0 Tolerance
Rated speed rpm	: 1300	cm3/1000 strokes : +- 1.5 Check tolerance
rack travel mm Tolerance mm	: 1300	cm3/1000s. : +- 4.0 Spreed
Rated speed rpm rack travel mm Tolerance mm	: 750 : 9.85	Tolerance cm3/1000 strokes : 5.0 Check tolerance
Tolerance mm	: + 0.05	cm3/1000s. : 7.0
Rated speed rpm rack travel mm	: 1100 : 9.35	Aneroid pressure hPa : -
Tolerance mm	: + 0.10	Rated speed rpm : 500 Del. quantity
ANEROID/ALTITUDE	+	cm3/1000 strokes : 38.0 Tolerance
COMPENSATOR TEST	‡	cm3/1000 strokes : +- 1.0 Check tolerance
SETTING	‡	cm3/1000s. : +- 3.0
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 9.85 : +- 0.05	Rack travel in mm : 8.05
MEASUREMENT	‡	Toterance 1/min : + 5
	500 8.90 + 0.10	STARTING FUEL DELIVERY
Rated speed rpm :	500	Rated speed rpm : 100 Del. quantity
	290	cm3/1000 strokes : 115.0 Tolerance
	+ 0.15	cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. : + 8.0
	250 9.20 + 0.05	cm3/1000s. : +- 8.0
START CUT-OUT		LOW IDLE
Rated speed rpm :	< 220	Del. quantity cm3/1000 strokes : 12.0
Check speed 1/min :	< 240	Tolerance cm3/1000 strokes : +- 2.0
	‡	Check tolerance cm3/1000s. : +- 4.5

Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. : 3.5

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 03.11.94 Edition Test oil : ISO 4113

Combination No. : 0400074889

Injection pump

Pump designation : PES4M55C32ORS172

EP type number : 0410054958

Governor

Governer design. : RSF375/2300M75-2

Governer no. : 0420021166

Cust. part No. :

Customer-spec. information Customer : MB-PKW

Motor : OM601-Moof II

Power KW : 53.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

148.5 : + 1.5 Tolerance bar

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

H03

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 1.75 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 21.00 Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasina : 0-90-180-270

BEGINNING OF DELIVERY DIFFERENCE

S.o.d. blocking

Barrel no.

°NW after s.o.d. : 17.0 Tolerance : $\leftarrow 0.20$ Tolerance Check

tolerance °NW : **←** 0.30

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 12.35 : + 0.05 Tolerance mm

Del. quantity cm3/1000 strokes : 33.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s.

: +- 1.5

Spreed Tolerance	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2950
cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000S. : 3.0	Rated speed rpm : 900
2nd speed rpm : 375	CRT mm max. : 1.45
Rack travel in mm: 6.50 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5 Tolerance	control lever
cm3/1000 strokes : +- 0.5 Spreed Tolerance	position degree : 14.0 tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 450 rack travel mm : 4.90 Tolerance mm : +- 0.10
Rack travel in mm: 6.50 Tolerance mm: + 0.10	rack travel mm : 2.50 Rated speed rpm : 670 Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 900 Ref. pressure	- Rated speed rpm : 250
Ref. pressure ALDA / ADA hPa : 1100 Del. quantity	CRT mm min. : > 11.00
cm3/1000 strokes : 33.5 Tolerance	Rated speed rpm : 900
cm3/1000 strokes : +- 0.5 Check tolerance	CRT mm max. : 1.45
cm3/1000s. : + 1.5 Spreed Tolerance	- rack travel mm : 6.50 - Rated speed rpm : 375
cm3/1000 strokes : 2.5 Check tolerance	
cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 900 rack travel mm : 12.35 Tolerance mm : +- 0.05
control lever position degree : 50.0	Rated speed rpm : 1400 rack travel mm : 12.05 Tolerance mm : + 0.10
rack travel mm : 8.40 Rated speed rpm : 2500	Rated speed rpm : 2300 rack travel mm : 11.40

Tolerance mm	: ← 0.10 +	Check tolerance cm3/1000s. : 3.0
ADJUSTMENT TEST	ADA/ALDA T	
SETTING	Ŧ	
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm	1	HIGH IDLE Rated speed rpm : 2500 rack travel mm : 8.40 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 20.0 Tolerance
Rated speed rpm Ref. pressure ALDA / ADA hPa rack trayel mm Tolerance mm	: 900 : -0.60 : ← 0.10	cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance
Ref. pressure ALDA / ADA hPa	: 750	cm3/1000s. : 3.0
rack travel mm Tolerance mm	: -2.00 : ← 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.10
FUEL DELIVERY CHA	RACTERISTICS	Del. quantity cm3/1000 strokes : 52.0 Spreed
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 1400 : 33.8 : + 0.8	Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
cm3/1000s. Spreed	: + 1.8	LOW IDLE
Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: 2.5 : 3.0	Rated speed rpm : 375 rack travel mm : 6.50 Tolerance mm : + 0.10 Del. quantity
Ref. pressure ALDA / ADA hPa Rated speed rpm Spreed Del. quantity cm3/1000 strokes	: 2300	cm3/1000 strokes : 7.8 Check tolerance cm3/1000s. : + 2.3 Spreed Check tolerance cm3/1000s. : 1.5
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 2.0	CHECKING THE IDLE—SPEED AUXILIARY
Spreed Tolerance cm3/1000 strokes	‡	degree : > 49.00 degree : < 46.50

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever

position degree : VWL Rated speed rpm : 425

Rack travel in mm : 8.90
Tolerance mm : + 0.80
Vacuum hPa : 400.0
Vacuum hPa : -

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : + 2.0

control lever

position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 900 rack travel mm : -1.70 Tolerance mm : +- 0.15

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 03.11.94 Test oil : ISO 4113

Combination No. : 0400074891

Injection pump

Pump designation : PES4M55C32ORS169

EP type number : 0410054959

Governor

Governer design. : RSF375/2300M75 Governer no. : 0420021160

Cust. part No. :

Customer—spec. information
Customer : MB-PKW
Motor : 0M601—ECE
Power KW : 55.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : +- 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

H07

x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values ____ BEGINNING OF DELIVERY Test pressure bar : 31.0 Tolerance bar : ← 1.0 Prestroke mm Tolerance mm : 2.05 : **←** 0.05 test only : \leftarrow 0.10 Rack travel in mm: 21.00 Tolerance mm : \leftarrow 1.00 Firing order : 1-3-4-2 Phasing : 0-90-180-270 BEGINNING OF DELIVERY DIFFERENCE S.o.d. blocking Barrel no. °NW after s.o.d. : 19.5 : +- 0.20 Tolerance Check tolerance °NW : + 0.30 BASIC SETTING Rated speed rpm : 1000 Rack travel in mm: 12.35 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 33.5 Tolerance cm3/1000 strokes : +-0.5 Check tolerance cm3/1000s. : +-1.5

Spreed	rack travel mm : 0.50 Tolerance mm : +- 0.50
Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 2950
Check tolerance	SET IDLE CONTROL LEVER POSITION
cm3/1000s. : 3.0	Rated speed rpm : 1000
2nd speed rpm : 375	CRT mm max. : 1.25
Rack travel in mm: 6.50 Tolerance mm: + 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5	andral lavan
cm3/1000 strokes : +- 0.5 Spreed	control lever position degree : 14.0 tolerance degree : + 2.0
Tolerance cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 375
(D) SETTING OF THISECTION COME	rack travel mm : 6.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 400 rack travel mm : 5.40 Tolerance mm : +- 0.10
Rack travel in mm: 6.50 Tolerance mm: + 0.10	rack travel mm : 2.00 Rated speed rpm : 710 Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 1000 FRef. pressure	Rated speed rpm : 250
ALDA / ADA hPa : 1100	CRT mm min. : > 11.00
Del. quantity cm3/1000 strokes : 33.5 Tolerance	Rated speed rpm : 1000
cm3/1000 strokes : + 0.5 Check tolerance	CRT mm max. : 1.25
cm3/1000S. : + 1.5 Spreed Tolerance	rack travel mm : 6.50 Rated speed rpm : 375
cm3/1000 strokes : 2.5	
Check tolerance cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 1000 rack travel mm : 12.35 Tolerance mm : + 0.05
control lever position degree : 50.0	Rated speed rpm : 1800 rack travel mm : 11.80 Tolerance mm : +- 0.10
Rated speed rpm : 8.70	Rated speed rpm : 2300 rack travel mm : 11.50

Tolerance mm	: ← 0.10	‡	Check tolerance cm3/1000s.	: 3.0
ADJUSTMENT TEST	ADA/ALDA	 ‡		
SETTING	•	‡	HIGH IDLE	
Rated speed rpm Ref. pressure		Ī	Rated speed rpm	: 2500
ALDA / ADA hPa	: 950	+	rack travel mm	. 200 : 8.70
rack travel mm	: -0.10	+	Tolerance mm	: +- 0.20
Tolerance mm	: ← 0.10	+	Del. quantity	
MEASUREMENT		‡	cm3/1000 strokes Tolerance	
Rated speed rpm	: 1000	. †	cm3/1000 strokes	
Ref. pressure	: 1000	†	Check tolerance	
ALDA / ADA hPa	: 900	I	cm3/1000s. Spreed	: ← 3.0
rack travel mm	: -0.60	1	Tolerance	
Tolerance mm	: ← 0.10	1	cm3/1000 strokes	: 2.5
		1	Check tolerance	
Rated speed rpm Ref. pressure		‡	cm3/1000s.	: 3.0
ALDA / ADA hPa	: 750_	+	***************************************	
rack travel mm Tolerance mm	: -2.00	†	STARTING FUEL DEL	IVERY
rocerance min	: ← 0.20	†	Datad apand www	. 100
		Ŧ	Rated speed rpm rack travel mm	: 100 : 20.10
FUEL DELIVERY CHA	ARACTERISTICS	I	Del. quantity cm3/1000 strokes Spreed	: 52.0
Ref. pressure		1	Tolerance	
ALDA / ADA hPa	: 1100	1	cm3/1000 strokes	: 6.0
Rated speed rpm			Check tolerance	. 0.0
Del. quantity		+	cm3/1000s.	: 6.0
cm3/1000 strokes	: 33.8	+		
Tolerance	. 0.0	+		
cm3/1000 strokes Check tolerance	: +- 0.8	†		
cm3/1000s.	: +- 1.8	†	LOUTING	
Spreed	. '- 1.0	I	LOW IDLE	
Tolerance		I	Rated speed rpm	• 375
cm3/1000 strokes	: 2.5	1	rack travel mm	
Check tolerance		+	Tolerance mm	: + 0.10
cm3/1000s.	: 3.0	+	Del. quantity	
		+	cm3/1000 strokes	: 7.8
Ref. pressure	4400	+	Check tolerance	
ALDA / ADA hPa		+	cm3/1000s.	:
Rated speed rpm Spreed	: 2300	†	Spreed	
Del. quantity		†	Check tolerance	. 45
cm3/1000 strokes	: 35.0	I	cm3/1000s.	: 1.5
Tolerance	. 37.0	I		
cm3/1000 strokes	: ← 1.0	+	CHECKING THE IDLE-	-SPEED AUXILIARY
Check tolerance		+	•	
cm3/1000s. Spreed	: +- 2.0	‡	degree	: > 49.00
Tolerance cm3/1000 strokes	: 2.5	‡	degree	: < 46.50

H09

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever

position degree : VWL Rated speed rpm : 425

Rack travel in mm : 8.90 Tolerance mm : \leftarrow 0.80 Vacuum hPa : 400.0 Vacuum hPa : \leftarrow

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : +- 2.0

control lever

position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

ADJUST ACTIVE SURGE DAMPING ARD

Rated speed rpm : 1000

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 14.09.94 Test oil : ISO 4113

Combination No. : 0400074898T8

Injection pump

Pump designation : PES4M55C32ORS172

EP type number :

Governor

Governer design. : RSF375/2300M56-10

Governer no.

Cust. part No. : T8

Customer—spec. information

Customer : MB-PKW
Motor : 0M601-Abal. MJ90

Power KW : 53.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1469990351

Inlet press. bar : 1.0

Test nozzle holde

assembly : 1688901111

Opening pressure

bar : 148.5 Tolerance bar : + 1.5

Test lines : 1680750014

Outside diameter : 6.0

x inside diameter: 2.0

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x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values ___ BEGINNING OF DELIVERY rest pressure bar : 31.0 Tolerance bar : + 1.0 Prestroke mm : 1.75 Tolerance mm test only : **←** 0.10 Rack travel in mm: 21.00 Tolerance mm : \leftarrow 1.00 Firing order : 1-3-4-2 Phasing : 0-90-180-270 BEGINNING OF DELIVERY DIFFERENCE S.o.d. blocking Barrel no. 1 "NW after s.o.d. : 17.0 Tolerance Check tolerance °NW : + 0.30BASIC SETTING Rated speed rpm : 900 Rack travel in mm : 12.35 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 33.5

Tolerance

Check tolerance

cm3/1000s.

cm3/1000 strokes : +-

0.5

Spreed Tolerance	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 2950
cm3/1000 strokes : 2.5	SET IDLE CONTROL LEVER POSITION
Check tolerance cm3/1000s. : 3.0	Rated speed rpm : 900
2nd speed rpm : 375	CRT mm max. : 1.45
Rack travel in mm: 6.50 Tolerance mm: +- 0.10 Del. quantity	LOW IDLE
cm3/1000 strokes : 6.5 Tolerance	control lever
cm3/1000 strokes : + 0.5 Spreed Tolerance	position degree : 14.0 tolerance degree : +- 2.0
cm3/1000 strokes : 1.0	Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 6.50
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	SET IDLE AUXILIARY SPRING
IDLE STAGE	Rated speed rpm : 450 rack travel mm : 4.90 Tolerance mm : + 0.10
Rack travel in mm : 6.50 Tolerance mm : + 0.10	rack travel mm : 2.50 Rated speed rpm : 670 Tolerance 1/min : +- 50
FULL LOAD DELIVERY AT FULL LOAD STOP	Load pick-up
Rated speed rpm : 900 Ref. pressure	Rated speed rpm : 250
ALDA / ADA hPa : 1100 — Del. quantity	CRT mm min. : > 11.00
cm3/1000 strokes : 33.5	Rated speed rpm : 900
cm3/1000 strokes : + 0.5 Check tolerance	CRT mm max. : 1.45
cm3/1000s. : + 1.5 Spreed Tolerance	rack travel mm : 6.50 Rated speed rpm : 375
cm3/1000 strokes : 2.5 Check tolerance	
cm3/1000s. : 3.0	TORQUE CONTROL
RATED SPEED	Rated speed rpm : 900 rack travel mm : 12.35 Tolerance mm : + 0.05
control lever position degree : 50.0	Rated speed rpm : 1400 rack travel mm : 12.05 Tolerance mm : + 0.10
rack travel mm : 8.50 Rated speed rpm : 2500	Rated speed rpm : 2300 rack travel mm : 11.40

Tolerance mm	: +- 0.10	Check tolerance cm3/1000s. : 3.0
ADJUSTMENT TEST	ADA/ALDA	Ī
SETTING		HTCH TALE
Rated speed rpm Ref. pressure ALDA / ADA hPa rack travel mm Tolerance mm		HIGH IDLE Rated speed rpm : 2500 rack travel mm : 8.50 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 22.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance
Rated speed rpm Ref. pressure ALDA / ADA hPa	: 900 : 900	cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 3.0 - Spreed
rack travel mm Tolerance mm	: −0.60 : ← 0.10	Tolerance cm3/1000 strokes : 2.5 Check tolerance
Rated speed rpm Ref. pressure ALDA / ADA hPa	: 750 -	cm3/1000s. : 3.0
rack travel mm Tolerance mm	: -2.00 : + 0.20	STARTING FUEL DELIVERY Rated speed rpm : 100
FUEL DELIVERY CHA	ARACTERISTICS -	rack travel mm : 20.10 Del. quantity cm3/1000 strokes : 52.0
Ref. pressure ALDA / ADA hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1400 : 33.8	Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. Spreed	: +- 1.8	LOW IDLE
Tolerance cm3/1000 strokes : 2.5 Check tolerance cm3/1000s. : 3.0 Ref. pressure ALDA / ADA hPa : 1100 Rated speed rpm : 2300 Spreed	4	- Rated speed rpm : 375 - rack travel mm : 6.50 - Tolerance mm : +- 0.10 - Del. quantity
		- cm3/1000 strokes : 7.8 - Check tolerance - cm3/1000S. : +- 2.3 - Spreed - Check tolerance
Del. quantity cm3/1000 strokes Tolerance	: 35.0	- cm3/1000s. : 1.5
cm3/1000 strokes Check tolerance	4	- CHECKING THE IDLE-SPEED AUXILIARY
cm3/1000s. Spreed Tolerance	: +- 2.0	- degree :> 49.00 - - degree :< 46.50
cm3/1000 strokes	: 2.5	

SETTING PNEUMATIC FAST IDLE (ELA) (PLA) POSITION

control lever

position degree : VWL Rated speed rpm : 425

Rack travel in mm : 8.90
Tolerance mm : + 0.80
Vacuum hPa : 400.0
Vacuum hPa : -

SETTING/TESTING ELECTRONIC IDLE REGULATION (ELR)

control lever

position degree : 14.0 tolerance degree : +- 2.0

control lever

position degree : 50.0

Adjustment of the control-rod travel sensor

control lever

position degree : 50.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.11.94 Test oil : ISO 4113

Combination No. : 0402640844

Injection pump

Pump designation : PE12P12OA52OLS7879

EP type number : 0412620841

Governor

Governer design. : RQV350...1200PA1167

Governer no. : 0421814107

Cust. part No. : 0250742402

Customer-spec. information Customer : MTU

Motor : 12V183-03 Power KW : 845.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 150
Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.05 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 0.50

Firing order : 12-1-5-9-8

: - 3- 4- 11- 10 : - 2- 6- 7

Phasing : 0-45-60-105-120

: -165-180-225-240 : -285-300-345

Tolerance : $\leftarrow 0.30$

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 12

BASIC SETTING

Rated speed rpm : 1200

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Rack travel in m Tolerance mm		guide sleeve travel mm : 2.86 Tolerance mm : +- 0.25
Del. quantity cm3/1000 strokes	: 306.0	Rated speed rpm : 470 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	travel mm : 3.42 Tolerance mm : + 0.25
Check tolerance cm3/1000S.	: + 4.0	Rated speed rpm : 620 guide sleeve travel mm : 3.89
Spreed Tolerance cm3/1000 strokes	: 6.0	Tolerance mm : + 0.25 Rated speed rpm : 1366 guide sleeve
Check tolerance cm3/1000s.	: 10.0	travel mm : 10.00 Tolerance mm : + 0.25
2nd speed rpm	: 350	Rated speed rpm : 1470 guide sleeve travel mm : 11.50
Rack travel in mn Tolerance mm Del. quantity	: ← 0.30	Tolerance mm : + 0.50
cm3/1000 strokes Tolerance cm3/1000 strokes		GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: -	control lever position degree : - 1
Spreed Tolerance		+ Rated speed rpm : 1310
cm3/1000 strokes Check tolerance cm3/1000s.	: 10.0 : 15.0	+ Rack travel in mm : 12.00 + Tolerance mm : + 1.30
(B) SETTING OF IN	LICOTTON DUMP	FULL LOAD DELIVERY AT FULL LOAD STOP
WITH GOVERNOR	NECITOR FOR	+ Rated speed rpm : 1200 + Aneroid pressure
GUIDE SLEEVE TRAV		hPa : 2000 Del. quantity
Rated speed rpm	: 350	+ cm3/1000 strokes : 306.0 + Tolerance
guide sleeve travel mm	: 1.53	+ cm3/1000 strokes : + 1.0 + Check tolerance
Tolerance mm	: 0.15	+ cm3/1000s. : +- 4.0 + Spreed
Rated speed rpm guide sleeve	: 1281	Tolerance cm3/1000 strokes : 6.0
travel mm Tolerance mm	: 8.53 : + 0.20	+ Check tolerance + cm3/1000s. : 10.0
Rated speed rpm guide sleeve	: 990	RATED SPEED
travel mm Tolerance mm	: 5.68 : + 0.25	‡
Rated speed rpm	: 420	<pre>control lever position degree : 122.0 tolerance degree : + 4.0</pre>

		1		
rack travel mm Rated speed rpm Tolerance 1/min	: 11.70 : 1245 : ← 5	‡ ‡	Pressure hPa rack travel mm Tolerance mm	: 6.80
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1330 : +- 15	† †	Pressure hPa rack travel mm Tolerance mm	: 1600 : 11.70 : ← 0.05
rack travel mm Tolerance mm Rated speed rpm	: 0.75 : +- 0.75 : 1470	‡	Pressure hPa rack travel mm Tolerance mm	: 10.15
LOW IDLE		— <u>‡</u>	START CUT-OUT	·····
control lever position degree tolerance degree	: 68.0 : +- 4.0	+	Rated speed rpm Check speed 1/min	
Testing:		Ī	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm rack travel mm Tolerance mm	: 350 : 4.00 : + 0.10	+++++++++++++++++++++++++++++++++++++++	Aneroid pressure hPa Rated speed rpm	: 800 : 600
Rated speed rpm	: 250	Ŧ	Del. quantity cm3/1000 strokes Tolerance	: 261.0
CRT mm min.	: > 6.30	‡	cm3/1000 strokes Check tolerance	
Rated speed rpm	: 450	‡	cm3/1000s.	
TORQUE CONTROL		- ‡	Aneroid pressure hPa	: -
Rated speed rpm rack travel mm	: 1200 : 12.70	+	Rated speed rpm Del. quantity cm3/1000 strokes	
Tolerance mm	: + 0.10		Tolerance cm3/1000 strokes	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 9.50 : +- 0.10	+	Check tolerance cm3/1000S. Spreed	: +- 4.0
ANEROID/ALTITUDE		- +	Tolerance cm3/1000 strokes Check tolerance	: 10.0
COMPENSATOR TEST		‡	cm3/1000s.	: 15.0
MEASUREMENT		‡ ‡	BREAKAWAY	
Pressure hPa Rated speed rpm rack travel mm Tolerance mm	: - : 600 : 5.80 : +- 0.15	+	Rack travel in mm Rated speed rpm Tolerance 1/min	
Pressure hPa rack travel mm Tolerance mm	: 400 : 7.70 : +- 0.05	+	STARTING FUEL DELI	VERY

Rated speed rpm 100 Del. quantity cm3/1000 strokes : 360.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s.

: + 19.0

LOW IDLE

Rated speed rpm 350 rack travel mm 4.00 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0402646792

Injection pump

Pump designation: PE6P120A320LS7854

EP type number : 0412626872

Governor

Governer design. : RQV350...1050PA1051

Governer no. : 0421814036

Cust. part No. : 0230746202

Customer-spec. information Customer : MB-NF7 Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : Inlet press. bar : 1.5
Tolerance bar : +- 0.1

Overflow quantity

min. L/h min. l/h : 115 Tolerance l/h : + 10.0 115

Test nozzle holde

: 1688901105 assembly

Opening pressure

. + ^{208.5} bar Tolerance bar

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm : 20.50Tolerance mm : +0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm : 13.35	+ guide sleeve
Tolerance mm : +- 0.05	travel mm : 2.52 Tolerance mm : +- 0.25
	T Total ance min : += 0.25
Del. quantity	Rated speed rpm : 770
cm3/1000 strokes : 235.0	guide sleeve
	+ travel mm : 4.92
Tolerance	+ Tolerance mm : + 0.25
cm3/1000 strokes : +- 1.0	+
Charle to Language	+ Rated speed rpm : 1320
Check tolerance cm3/1000s. : +- 4.0	+ guide sleeve
cm3/1000s. : +- 4.0	+ travel mm : 13.50
Spreed	
Tolerance	T
cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
. J.6	T GOIDE SLEEVE FOSTITON
Check tolerance	
cm3/1000s. : 9.0	+ control lever
	position degree : - 1
2nd speed rpm : 350	+ Rated speed rpm : 1160
Davids American Communication	+ ' '
Rack travel in mm: 4.80	+ Rack travel in mm : 14.00
Tolerance mm : + 0.30	† Tolerance mm : + 1.30
Del. quantity	†
cm3/1000 strokes : 19.0 Tolerance	
cm3/1000 strokes : +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	† natural annual cons
cm3/1000s. : +- 6.0	Rated speed rpm : 600
Spreed	+ Aneroid pressure + hPa : 1200
Tolerance	· · · · · · · · · · · · · · · · · · ·
cm3/1000 strokes : 6.0	+ Del. quantity + cm3/1000 strokes : 235.0
Check tolerance	Tolerance
cm3/1000s. : 10.0	- cm3/1000 strokes : +- 1.0
	Check tolerance
	+ cm3/1000s. : +- 4.0
(B) SETTING OF INJECTION PUMP	Spreed
WITH GOVERNOR	+ Tolerance
	+ cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : 9.0
Pated speed 750	†
Rated speed rpm : 350 guide sleeve	DATES OFFI
travel mm : 1.22	+ RATED SPEED
Tolerance mm : + 0.10	Ť
Total direction . T. U. (C.	control lever
Rated speed rpm : 1108	+ position degree : 105.0
guide sleeve	tolerance degree : +- 4.0
travel mm : 9.64	total white degree . 1 4.5
Tolerance mm : + 0.10	rack travel mm : 12.10
	+ Rated speed rpm : 1095
Rated speed rpm : 403	+ Tolerance 1/min : + 5
guide sleeve	+
travel mm : 1.97	rack travel mm : 4.00
Tolerance mm : +- 0.25	+ Rated speed rpm : 1170
Detect on all and	+ Tolerance 1/min : + 15
Rated speed rpm : 453	†
	+ rack travel mm : 0.50

Tolerance mm Rated speed rpm		‡	Pressure hPa : 580 rack travel mm : 2.50	
LOW IDLE		Ī	Tolerance mm : + 0.10	
control lever position degree	· 69 n	‡	START CUT-OUT Rated speed rpm : < 270	
tolerance degree		1	Check speed 1/min : < 290	
Testing:		+		
Rated speed rpm rack travel mm Tolerance mm	: 350 : 4.80 : + 0.10	‡	FUEL DELIVERY CHARACTERISTICS Aneroid pressure	
		‡	hPa : 1200 Rated speed rpm : 1050	
rack travel mm Rated speed rpm Tolerance 1/min	: + 20	† † † †	Del. quantity cm3/1000 strokes : 225.0 Tolerance	
Rated speed rpm		‡	cm3/1000 strokes : +- 2.0 Check tolerance	
CRT mm min.		‡	cm3/1000s. : +- 5.0 Spreed	
Rated speed rpm	: 400	‡	Tolerance cm3/1000 strokes : 8.0	
TORQUE CONTROL		Ī	Check tolerance cm3/1000s. : 12.0	
Rated speed rpm	: 600 : 13.35	+	Aneroid pressure	
Rated speed rpm rack travel mm Tolerance mm	: + 0.05	Ī	nPa : 1200 Rated speed rpm : 1050	
Rated speed rpm	: 1050 : 13.20	1	Del. quantity cm3/1000 strokes : 169.0 Tolerance	
rack travel mm Tolerance mm	: + 0.10	+	cm3/1000 strokes : +- 2.0 Check tolerance	
Rated speed rpm rack travel mm Tolerance mm	: 1050 : 10.70	‡	cm3/1000s. : +- 5.0	
Tolerance mm	: ← 0.10	‡	Aneroid pressure hPa :	
ANEROID/ALTITUDE COMPENSATOR TEST		+	Rated speed rpm : 500 Del. quantity	
CONTINUATION TEST		Ī	cm3/1000 strokes : 131.0 Tolerance cm3/1000 strokes : +- 1.0	
SETTING		‡	Check tolerance cm3/1000s. : +- 4.0	
Rated speed rpm Pressure hPa	: 500	‡	Spreed Tolerance	
MEASUREMENT		‡	cm3/1000 strokes : 8.0 Check tolerance	
Pressure hPa Rated speed rpm		‡	cm3/1000s. : 12.0	
rack travel mm Tolerance mm	: 0.85	Ŧ	BREAKAWAY	
Rated speed rpm	: 500	‡	Rack travel in mm : 12.10	

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Rated speed rpm : 1095

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 250.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 350 rack travel mm 4.80 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance

3.0

cm3/1000 strokes : +-Check tolerance cm3/1000s. : +-6.0 : +-

Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 02.11.94 : ISO 4113

Combination No. : 0402646993

Injection pump

Pump designation : PE6P120A320LS7852-1

EP type number : 0412626910

Governor

Governer design. : RQ300/1050PA1030-18

Governer no. : 0421801746

Cust. part No. : 0230744502

Customer-spec. information Customer : MB-NFZ

Mctor

: 0M441 LA

Power KW

: 250.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1417413025

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

Tolerance bar

: 208.5 : ← 1.5

Lube oil

: 1409918004

Test lines

: 1680750075

Outside diameter : 8.0

x inside diameter :

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

test only

: +- 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order

: 6-3-5-2-4-

: 1-

Phasing

: 0-60-120-180-240

Tolerance

: -300-360 : +- 0.30

Check

tolerance °NW

: + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm :

600

Rack travel in mm : 14.40

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes	: 248.0	İ	guide sleeve travel mm : 6.00 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes	: + 1.0		Rated speed rpm : 1280
Check tolerance cm3/1000s.	: + 4.0	I	guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Spreed Tolerance cm3/1000 strokes Check tolerance	: 5.0	+	GUIDE SLEEVE POSITION Rated speed rpm : 600
cm3/1000s. 2nd speed rpm	: 9.0 : 300	‡	Rack travel in mm : 20.00 Tolerance mm : +- 0.80
•		Ţ	
Rack travel in mm Tolerance mm Del. quantity		+	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Tolerance	: 19.0	-	Rated speed rpm : 600 Aneroid pressure hPa : 1100
cm3/1000 strokes Check tolerance	: ← 3.0	<u> </u>	Del. quantity cm3/1000 strokes : 248.0
cm3/1000s. Spreed	: +- 6.0	‡	Tolerance cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes	: 6.0	‡	Check tolerance cm3/1000s. : +- 4.0
Check tolerance	40.0	+	Spreed
cm3/1000s.	: 10.0	‡	Tolerance cm3/1000 strokes : 5.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	‡ †	Check tolerance cm3/1000s. : 9.0
		I	RATED SPEED
GUIDE SLEEVE TRAVE		+	TOTAL OF LED
Rated speed rpm	: 300	+	control lever
guide sleeve travel mm	: 1.66	İ	position degree : 97.0
Tolerance mm	: ← 0.10	Į	tolerance degree : +- 4.0
Debad and discuss	4400	+	rack travel mm : 13.40
Rated speed rpm guide sleeve	: 1109	İ	Rated speed rpm : 1103 Tolerance 1/min : +- 8
travel mm	: 6.36	Į	Toterance Millim: The o
Tolerance mm	: ← 0.10	+	rack travel mm : 4.00
Rated speed rpm guide sleeve	: 1050	‡	Rated speed rpm : 1195 Tolerance 1/min : + 15
travel mm	: 6.00	Į	rack travel mm : 0.75
Tolerance mm	: + 0.10	‡	Tolerance mm : + 0.75 Rated speed rpm : 1300
Rated speed rpm guide sleeve	: 401	‡	
travel mm Tolerance mm	: 4.01 : + 0.10	‡	LOW IDLE
Rated speed rpm	: 510	‡	

H24

control lever position degree tolerance degree	: 73.0 : + 4.0	‡	rack travel mm Tolerance mm	: 11.45 : + 0.10
Testing:	7.0	Ī	START CUT-OUT	
Rated speed rpm	: 300	‡	Rated speed rpm Check	
Rated speed rpm rack travel mm Tolerance mm	: ← 0.10	‡	speed 1/min	: < 240
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 400 : + 20	Ī	FUEL DELIVERY CHA	
Rated speed rpm		1	hPa Rated speed rpm	: 1100
CRT mm min.		+	Del. quantity cm3/1000 strokes	
TODOLIE COMPON	——————————————————————————————————————	‡	Tolerance cm3/1000 strokes	: ← 2.0
TORQUE CONTROL	. 400	‡	Check tolerance cm3/1000s.	
Rated speed rpm rack travel mm Tolerance mm	: 000 : 14.40 : +- 0.05	Ī	Spreed Tolerance cm3/1000 strokes	. 90
		Ī	Check tolerance cm3/1000s.	: 12.0
Rated speed rpm rack travel mm Tolerance mm	: 14.40 : + 0.10	‡	Aneroid pressure	
Rated speed rpm	: 400	‡	hPa Rated speed rpm	: 550 : 400
rack travel mm Tolerance mm	: + 0.10	‡	pel. quantity cm3/1000 strokes	
ANEROID/ALTITUDE		I	Tolerance cm3/1000 strokes Check tolerance	: + 1.5
COMPENSATOR TEST		‡	cm3/1000s.	: +- 4.5
SETTING		‡	Aneroid pressure hPa	: -
Rated speed rpm Pressure hPa		‡	Rated speed rpm Del. quantity	: 500
rack travel mm Tolerance mm	: 1100 : 14.05 : ← 0.05	Ī	cm3/1000 strokes Tolerance cm3/1000 strokes	
MEASUREMENT	0.05	-	Check tolerance cm3/1000s.	: +- 4.0
Pressure hPa	: -	+	Spreed Tolerance	
Rated speed rpm rack travel mm	: 10.35	‡	cm3/1000 strokes Check tolerance	
Tolerance mm Rated speed rpm	: +- 0.20 : 400	‡	cm3/1000s.	: 12.0
Pressure hPa	: 550	Ŧ	BREAKAWAY	
rack travel mm Tolerance mm	: 13.60 : + 0.10	Ţ	Rack travel in mm	: 13.40
Pressure hPa	: 250	‡	Rated speed rpm Tolerance 1/min	: 1103 : + 8
H25				

STARTING FUEL DELIVERY

Rated speed rpm 100

Del. quantity cm3/1000 strokes : 265.0

Tolerance

cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm 300 rack travel mm 5.90 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0402646996

Injection pump

Pump designation : PE6P120A320LS7852

EP type number : 0412626871

Governor

Governer design. : RQ300/1050PA1031-4

Governer no. : 0421801656

Cust. part No. : 0230744702

Customer-spec. information Customer : MB-NFZ Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : +- 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : +- 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar Tolerance bar

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x Length mm : 1000 3.0

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm ÷ 0.05 Tolerance mm

test only : - 0.10

Rack travel in mm : 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 6-3-5-2-4-: 1-

: 0-60-120-180-240 Phasing

: -300-360 Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 600

Rack travel in m Tolerance mm		travel mm : 6.05 Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes	: 248.0	Rated speed rpm : 413 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	travel mm : 4.85 Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: +- 4.0	+ Rated speed rpm : 500 - guide sleeve - travel mm : 6.00
Spreed Tolerance cm3/1000 strokes	: 5.0	Tolerance mm : +- 0.10 Rated speed rpm : 1270 guide sleeve
Check tolerance cm3/1000s.		travel mm : 11.50 Tolerance mm : + 0.50
2nd speed rpm		Rated speed rpm : 945 guide sleeve travel mm : 6.15
Rack travel in mm Tolerance mm Del. quantity	: ← 0.30	Tolerance mm : + 0.10
cm3/1000 strokes Tolerance		GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance		+ Rated speed rpm : 600
cm3/1000s. Spreed Tolerance	: +- 6.0	Rack travel in mm: 20.00 Tolerance mm: + 0.80
cm3/1000 strokes Check tolerance		FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 10.0	+ Rated speed rpm : 600
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	+ Aneroid pressure + hPa : 1100 + Del. guantity
		+ cm3/1000 strokes : 248.0 + Tolerance
GUIDE SLEEVE TRAV		+ cm3/1000 strokes : + 1.0 + Check tolerance
Rated speed rpm guide sleeve travel mm	: 300 : 2.13	- cm3/1000s. : + 4.0 - Spreed - Tolerance
Tolerance mm	: + 0.10	cm3/1000 strokes : 5.0 Check tolerance
Rated speed rpm guide sleeve	: 1095	cm3/1000s. : 9.0
travel mm Tolerance mm	: 6.55 : ← 0.10	RATED SPEED
Rated speed rpm guide sleeve	: 1050	- control lever
travel mm Tolerance mm	: 6.20 : + 0.10	position degree : 99.0 tolerance degree : + 4.0
Rated speed rpm	: 913	rack travel mm : 13.40 Rated speed rpm : 1098

Tolerance 1/min : +- 8	1
	+ Pressure hPa : -
rack travel mm : 4.00	Rated speed rpm : 400
Rated speed rpm : 1195	+ rack travel mm : 10.35
Tolerance 1/min : + 15	† Tolerance mm : ← 0.20
rack travel mm · 0.75	t Dated around array (00
rack travel mm : 0.75 Tolerance mm : + 0.75	Rated speed rpm : 400
Tolerance mm : + 0.75 Rated speed rpm : 1300	Pressure hPa : 550
	rack travel mm : 13.60
	+ Tolerance mm : + 0.10
LOW IDLE	+
	+ Pressure hPa : 250
control lever	rack travel mm : 11.45
position degree : 71.0	Tolerance mm : + 0.10
tolerance degree : +- 4.0	I
4.0	START CUT-OUT
Testing:	1
	+ Rated speed rpm : < 220
Rated speed rpm : 300	+ Check
rack travel mm : 3.50 Tolerance mm : +- 0.10	+ speed 1/min : < 240
Tolerance mm : +- 0.10	†
rack travel mm : 2.00	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 340	TOTE VEETVENT CHANGE ENTOTECS
rack travel mm : 2.00 Rated speed rpm : 340 Tolerance 1/min : + 20	+ Aneroid pressure
	+ hPa : 1100
Rated speed rpm : 200	+ Rated speed rpm : 1050
CDT	+ Del. quantity + cm3/1000 strokes : 240.0
CRT mm min. : > 5.70	+ cm3/1000 strokes : 240.0
	+ Tolerance
TORQUE CONTROL	+ cm3/1000 strokes : + 2.0 + Check tolerance
	+ cm3/1000s. : +- 5.0
Rated speed rpm : 600	Spreed
rack travel mm : 14.40 Tolerance mm : +- 0.05	+ Tolerance
Tolerance mm : + 0.05	+ cm3/1000 strokes : 8.0
Datad anad 4000	+ Check tolerance
Rated speed rpm : 1050	+ cm3/1000s. : 12.0
rack travel mm : 14.40 Tolerance mm : ← 0.10	T Apopoid processes
10 cer ance min 0.10	+ Aneroid pressure
Rated speed rpm : 400	hPa : 550 Rated speed rpm : 400
Rated speed rpm : 400 rack travel mm : 13.60 Tolerance mm : +- 0.10	- Del. quantity
Tolerance mm : +- 0.10	+ cm3/1000 strokes : 208.5
	+ Tolerance
ANEDOTO / AL TITUDE	+ cm3/1000 strokes : + 1.5
ANEROID/ALTITUDE COMPENSATOR TEST	- Check tolerance - cm3/1000s. : +- 4.5
CONFERENCE (EST	$\frac{1}{1}$ cms/1000s. : $\frac{1}{1}$ 4.5
	Aneroid pressure
SETTING	+ hPa : -
	hPa : - Rated speed rpm : 500
Rated speed rpm : 400 Pressure hPa : 1100	+ Det. quantity
Pressure hPa : 1100	+ cm3/1000 strokes : 136.0
rack travel mm : 14.05 Tolerance mm : + 0.05	+ Tolerance
roterance nm : + 0.05	+ cm3/1000 strokes : +- 1.0
MEASUREMENT	Check tolerance
1	+ cm3/1000s. : +- 4.0

Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 **BREAKAWAY** Rack travel in mm : 13.40 Rated speed rpm : 1098 Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 265.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm 300 5.90 rack travel mm Tolerance mm : **←** 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.94 Test oil : ISO 4113

Combination No. : 0402646998

Injection pump

Pump designation : PE6P12OA32OLS7852

EP type number : 0412626871

Governor

Governer design. : RQV300...1050PA1033

: -6

Governer no. : 0421814009

Cust. part No. : 0230744602

Customer—spec. information Customer : MB-NFZ Motor : 0M441 LA Power KW : 250.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25Tolerance mm : $\leftarrow 0.05$

test only : \leftarrow 0.10

Rack travel in mm : 20.50Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : ← 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 600

•	Talanana
Rack travel in mm : 14.40 Tolerance mm : + 0.05	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
Del. quantity cm3/1000 strokes : 248.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Tolerance cm3/1000 strokes : + 1.0	cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
Check tolerance	
cm3/1000s. : + 4.0	RATED SPEED
Spreed Tolerance cm3/1000 strokes : 5.0	control lever position degree : 120.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 9.0	rack travel mm : 13.40
2nd speed rpm : 300	Rated speed rpm : 1095 Tolerance 1/min : +- 5
Rack travel in mm: 5.90 Tolerance mm: + 0.30 Del. quantity cm3/1000 strokes: 19.0	rack travel mm : 4.00 Rated speed rpm : 1180 Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes : + 3.0	rack travel mm : 0.75 Tolerance mm : +- 0.75
Check tolerance cm3/1000s. : +- 6.0 Spreed	Rated speed rpm : 1300
Tolerance cm3/1000 strokes : 6.0	LOW IDLE
Check tolerance cm3/1000S. : 10.0	control lever position degree : 82.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	tolerance degree : +- 4.0 Testing:
GUIDE SLEEVE POSITION	Rated speed rpm : 300 rack travel mm : 5.90 Tolerance mm : +- 0.10
	Rated speed rpm : 200
control lever position degree : -1	CRT mm min. : > 8.70
Rated speed rpm : 1170 Rack travel in mm : 13.00	Rated speed rpm : 350
Tolerance mm : + 1.30	TORQUE CONTROL
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 600
Rated speed rpm : 600 Aneroid pressure	rack travel mm : 14.40 Tolerance mm : + 0.05
hPa : 1100 Del. quantity cm3/1000 strokes : 248.0	Rated speed rpm : 1050 rack travel mm : 14.40 Tolerance mm : ← 0.10
= . = . =	

Rated speed rpm : 400 rack travel mm : 13.60 Tolerance mm : + 0.10 ANEROID/ALTITUDE COMPENSATOR TEST	Aneroid pressure hPa : 550 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 208.5 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
SETTING	+ cm3/1000s. : +- 4.5 + Aneroid pressure
Rated speed rpm : 400	+ hPa : - Rated speed rpm : 500
Pressure hPa : 1100 rack travel mm : 14.05 Tolerance mm : +- 0.05	+ Del. quantity + cm3/1000 strokes : 136.0
MEASUREMENT	Tolerance cm3/1000 strokes : + 1.0
- · · -	+ Check tolerance + cm3/1000S. : ← 4.0
Pressure hPa : - Rated speed rpm : 400 rack travel mm : 10.35 Tolerance mm : + 0.20	+ Spreed + Tolerance + cm3/1000 strokes : 8.0 + Check tolerance
Rated speed rpm : 400	cm3/1000s. : 12.0
Pressure hPa : 550 rack travel mm : 13.60 Tolerance mm : + 0.10	BREAKAWAY
Pressure hPa : 250 rack travel mm : 11.45 Tolerance mm : + 0.10	+ Rack travel in mm : 13.40 + Rated speed rpm : 1095 - Tolerance 1/min : +- 5
START CUT-OUT	STARTING FUEL DELIVERY
Rated speed rpm : < 240 Check speed 1/min : < 260	Rated speed rpm : 100
FUEL DELIVERY CHARACTERISTICS	LOW IDLE
Aneroid pressure hPa : 1100 Rated speed rpm : 1050 Del. quantity cm3/1000 strokes : 240.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000 strokes : 12.0	Rated speed rpm : 300 rack travel mm : 5.90 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 10.0
	+

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 04.11.94 Test oil : ISO 4113

Combination No. : 0403244038

Injection pump

Pump designation : PES4MW100/720RS1519

: -3

: 0413204018 EP type number

Governor

Governer design. : RQV300...1200MW132

: -7

: 0420083312 Governer no.

Cust. part No. : 0250748302

Customer-spec. information Customer : MB-NFZ Motor : 0M364LA

Power KW 77.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

: 1419992198 Overflow valve

Inlet press. bar : 1.5

Test nozzle holde

: 1688901101 assembly

Opening pressure

bar 208.5 1.5 Tolerance bar

Test Lines : 1680750089

Outside diameter : 8.0 x inside diameter : 3.0 x length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +-

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : + 0.50Check

tolerance °NW : + - 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm : 11.50 Tolerance mm : **←** 0.05

Del. quantity cm3/1000 strokes : 95.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes :

3.5

3.0

Check tolerance		+	_
cm3/1000s.	: 6.0	+ Rack travel in mm : 11.00)
Del. quantity		Tolerance mm : +- 2.00)
cm3/1000 strokes	: 12.0		**************************************
Tolerance		+ FULL LOAD DELIVERY AT FULL L	OAD STOP
cm3/1000 strokes	: ← 2.0	+	
Check tolerance cm3/1000s.		Rated speed rpm : 1200	
Spreed	: ← 4.5	+ Aneroid pressure + hPa : 700	
Tolerance		T Tra : 700 + Del. quantity	
cm3/1000 strokes	: 3.5	+ cm3/1000 strokes : 95.0	3
Check tolerance		+ Tolerance	
cm3/1000s.	: 5.5	+ cm3/1000 strokes : + 1.0	j
		+ Check tolerance + cm3/1000s. : +- 3.0	1
(B) SETTING OF IN	WECTION PUMP	- Spreed	,
WITH GOVERNOR		+ Tolerance	
		+ cm3/1000 strokes : 3.5	:
GUIDE SLEEVE TRAN	IF1	+ Check tolerance	
GOIDE SPEENE IKAN	/EL	t cm3/1000s. : 6.0	
Rated speed rpm	: 300		
guide sleeve		+ RATED SPEED	
travel mm	: 0.92	+	
Tolerance mm	: + 0.25	† combant Loven	
Rated speed rpm	: 1255	+ control lever + position degree : 112.0	
guide sleeve		+ tolerance degree : + 4.0	
travel mm	: 7.93	+	
Tolerance mm	: + 0.25	+ rack travel mm : 10.50	
Rated speed rpm	: 671	+ Rated speed rpm : 1245 + Tolerance 1/min : + 5	
guide sleeve	. 011	T Toterance Trimin : +- 5	
travel mm	: 3.58	rack travel mm : 4.00	
Tolerance mm	: ← 0.25	+ Rated speed rpm : 1365	
Rated speed rpm	: 721	+ Tolerance 1/min : +- 15	
guide sleeve	: 721	rack travel mm : 0.50	
travel mm	: 4.06	Tolerance mm : + 0.50	
Tolerance mm	: +- 0.25	+ Rated speed rpm : 1450	
Datad award www	070	+	
Rated speed rpm guide sleeve	: 970	LOUTDUE	
travel mm	: 5.51	LOW IDLE	
Tolerance mm		+	
D. L. J	4.00	- control lever	
Rated speed rpm guide sleeve	: 1690	position degree : 70.0	
travel mm	: 13.50	tolerance degree : +- 4.0	
Tolerance mm	: + 0.50	Testing:	
	- 100	+	
CITAL OF LAND	TTON	+ Rated speed rpm : 300	
GUIDE SLEEVE POSIT	I TOM	rack travel mm : 4.00 Tolerance mm : + 0.10	
		↑ Tolerance mm : ← 0.10	
control lever		Rated speed rpm : 200	
position degree		+	
Rated speed rpm	: 1450	+ CRT mm min. : > 4.50	
		†	

		+ Spreed
TORQUE CONTROL		Tolerance cm3/1000 strokes : 5.0 Check tolerance
Rated speed rpm rack travel mm	: 1200 : 11.50	cm3/1000s. : 7.0
Tolerance mm	: ← 0.05	Aneroid pressure hPa:-
Rated speed rpm rack travel mm Tolerance mm	: 750 : 11.50	Rated speed rpm : 500 Del. quantity
Tolerance mm	: + 0.10	+ cm3/1000 strokes : 66.0 + Tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		+ cm3/1000 strokes : + 1.0 - Check tolerance - cm3/1000S. : + 3.0
SETTING		BREAKAWAY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	• 700	Rack travel in mm : 10.50 Rated speed rpm : 1245 Tolerance 1/min : + 5
MEASUREMENT		
Pressure hPa Rated speed rpm	: - : 500	STARTING FUEL DELIVERY
rack travel mm Tolerance mm	: 10.70 : + 0.10	Rated speed rpm : 100 Del. quantity 7/1/200
Rated speed rpm	: 500	+ cm3/1000 strokes : 140.0 + Tolerance + cm3/1000 strokes : +- 5.0
Pressure hPa rack travel mm Tolerance mm	: 290 : 11.25 : + 0.10	Check tolerance cm3/1000s. : +- 8.0
Pressure hPa rack travel mm Tolerance mm	: 250 : 11.00 : ← 0.10	LOW IDLE
START CUT-OUT		Del. quantity
Rated speed rpm	: < 200	+ cm3/1000 strokes : 12.0 + Tolerance + cm3/1000 strokes : + 2.0
Check speed 1/min	: < 220	Check tolerance cm3/1000s. : +- 4.5
		Spreed Tolerance
FUEL DELIVERY CHA	ARACTERISTICS	- cm3/1000 strokes : 3.5 - Check tolerance
Aneroid pressure hPa Rated speed rpm Del. quantity	: 700 : 750	- cm3/1000s. : 5.5
cm3/1000 strokes Tolerance	: 86.0	-
cm3/1000 strokes Check tolerance	: ← 1.5	$\frac{1}{1}$
cm3/1000s.	: ← 4.0	Ŧ

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.11.94 : ISO 4113

Combination No. : 0403244042

Injection pump

Pump designation : PES4MW100/720RS1519

: -2

EP type number

: 0413204017

Governor

Governer design. : RQV300...1300MW144

Governer no.

: 0420083316

Cust. part No. : 0250745202

Customer-spec. information

Customer Motor

: MB-NFZ

: 0M364LA

Power KW

: 103.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1419992198

Inlet press. bar : 1.5

Test nozzle holde assembly

: 1688901101

Opening pressure bar

Tolerance bar

Test lines

: 1680750089

Outside diameter :

8.0

x inside diameter :

3.0

x Length mm

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm

Tolerance mm

: + 0.05

test only

: + 0.10

Rack travel in mm: 21.00

Firing order : 1-3-4-2

Phasing Tolerance : 0-90-180-270 : +- 0.50

Check

tolerance °NW

: + 0.75

BASIC SETTING

Rated speed rpm

1300

Rack travel in mm :

13.90

Tolerance mm

: +- 0.05

Del. quantity cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance cm3/1000s.

: +-4.0

Spreed

Tolerance

cm3/1000 strokes :

4.0

		+ guide sleeve
Check tolerance		† travel mm : 13.50
cm3/1000S.	: 7.5	+ Tolerance mm : +- 0.50
		+
Del. quantity	4.5	
cm3/1000 strokes	: 12.0	+ GUIDE SLEEVE POSITION
Tolerance		+
cm3/1000 strokes	: - 2.0	†
Check tolerance		+ control lever
cm3/1000s.	: +- 4.5	position degree : - 1Rated speed rpm : 1480
Spreed		+ Rated speed rpm : 1480
Tolerance	7.5	†
cm3/1000 strokes	: 3.5	+ Rack travel in mm : 13.00
Check tolerance		+ Tolerance mm : +- 2.00
cm3/1000s.	: 5.5	†
(D) SETTING OF THE	LIEGETON DINED	FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	DECITON PUMP	†
WITH GOVERNOR		- Rated speed rpm : 1300
		+ Aneroid pressure
GUIDE SLEEVE TRAV		+ hPa : 1200
GOIDE SEEENE THAN	EL	+ Del. quantity
Datad anad	. 700	+ cm3/1000 strokes : 126.0
Rated speed rpm	: 500	+ Tolerance
guide sleeve travel mm	: 0.91	+ cm3/1000 strokes : + 1.0
Tolerance mm	: + 0.25	+ Check tolerance
roterance min	: - 0.2	+ cm3/1000s. : + 4.0
Rated speed rpm	: 1355	+ Spreed
guide sleeve	: 1355	+ Tolerance
travel mm	. 770	+ cm3/1000 strokes : 4.0
Tolerance mm	: 7.78 : ← 0.25	+ Check tolerance
rocerance iiii	; - 0.6	+ cm3/1000s. : 7.5
Pated speed mm	: 1140	†
Rated speed rpm guide sleeve	: 1140	DATED ODERA
travel mm	: 5.88	+ RATED SPEED
travel mm Tolerance mm	: + 0.25	Ť
rocer ance min	. 1- 0.23	T control lever
Rated speed rpm	: 629	
guide sleeve	. 029	position degree : 116.0
travel mm	: 3.15	tolerance degree : +- 4.0
Tolerance mm	: + 0.25	T most traval 12.00
rocerdine iiii	. · U,	+ rack travel mm : 12.90 + Rated speed rpm : 1345
Rated speed rpm	: 679	
guide sleeve	. 017	† Tolerance 1/min : +- 5
travel mm	: 3.53	rack travel mm : 4.00
Tolerance mm	: + 0.25	
rocer ance nan	. += 0.2	+ Rated speed rpm : 1460
Rated speed rpm	: 800	Tolerance 1/min : + 15
guide sleeve	. 000	I rack travel mm . 0.50
travel mm	: 4.00	rack travel mm : 0.50
Tolerance mm	: +- 0.25	+ Tolerance mm : + 0.50
rocci arioc nin	0,27	Rated speed rpm : 1550
Rated speed rpm	: 1596	I
guide sleeve	. 1370	LOW IDLE
travel mm	: 12.00	I LOW TOLE
Tolerance mm	: +- 0.25	I
TO COLOR TO CHAIR	· · · · · · · · · · · · · · · · · · ·	t control lever
Rated speed rpm	: 1690	
nated speed (pill	. 1070	position degree : 71.0
		+ tolerance degree : +- 4.0

	1 Charl
Testing:	+ Check + speed 1/min : < 260
Rated speed rpm : 300 rack travel mm : 3.90 Tolerance mm : +- 0.10	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 200	+ Aneroid pressure + hPa : 1200
CRT mm min. : > 4.50	+ Rated speed rpm : 750 + Del. quantity + cm3/1000 strokes : 124.0
TORQUE CONTROL	Tolerance + cm3/1000 strokes : + 2.0
	+ Check tolerance
Rated speed rpm : 1300 rack travel mm : 13.90 Tolerance mm : +- 0.05	+ cm3/1000s. : + 5.0 + Spreed + Tolerance
	- cm3/1000 strokes : 6.0 - Check tolerance
Rated speed rpm : 750 rack travel mm : 13.90 Tolerance mm : + 0.10	+ cm3/1000S. : 9.0
Rated speed rpm : 600 rack travel mm : 13.90 Tolerance mm : + 0.10	+ Aneroid pressure + hPa : 1200 + Rated speed rpm : 600 - Del. quantity - cm3/1000 strokes : 126.0
ANEROID/ALTITUDE COMPENSATOR TEST	Tolerance
SETTING	Aneroid pressure
Rated speed rpm : 500 Pressure hPa : 1400 rack travel mm : 13.90	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 67.0
Tolerance mm : + 0.05 MEASUREMENT	Tolerance cm3/1000 strokes : + 1.0
Pressure hPa : -	+ Check tolerance - cm3/1000s. : + 3.0
Rated speed rpm : 500	
rack travel mm : 11.10 Tolerance mm : + 0.10	+ BREAKAWAY +
Rated speed rpm : 500	Rack travel in mm : 12.90 Rated speed rpm : 1345
Pressure hPa : 600 rack travel mm : 13.10 Tolerance mm : +- 0.10	Tolerance 1/min : +- 5
Pressure hPa : 350 rack travel mm : 11.60 Tolerance mm : + 0.10	STARTING FUEL DELIVERY Rated speed rpm : 100
	- Del. quantity - cm3/1000 strokes : 150.0
START CUT-OUT	+ Tolerance + cm3/1000 strokes : +- 5.0
Rated speed rpm : < 250	+ Check tolerance + cm3/1000s. : + 8.0

LOW IDLE

Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08.11.94 : ISO 4113

Combination No. : 0403246040

Injection pump

Pump designation : PES6MW100/720RS1517

EP type number

: 0413206019

Governor

Governer design. : RQV300...1300MW146

Governer no.

: 0420083318

Cust. part No. : 0250745302

Customer-spec. information Customer : MB-NFZ

Motor

: 0M366LA

Power KW

: 177.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1688901101

Opening pressure

Tolerance bar

Test lines

: 1680750089

Outside diameter :

8.0

x inside diameter : 3.0 x Length mm 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : +- 1.0

Prestroke mm Tolerance mm

: + 0.05

test only

: +- 0.10

Rack travel in mm: 21.00

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance

: **←** 0.50

Check

tolerance °NW

: + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 14.40

Tolerance mm

: +- 0.05

Del. quantity cm3/1000 strokes :

133.0

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance

cm3/1000s.

4.0 : +-

Spreed

Tolerance cm3/1000 strokes	: 4.0	+ Rated speed rpm : 1780 + guide sleeve + travel mm : 13.50
Check tolerance cm3/1000s.	: 7.5	travel mm : 13.50 Tolerance mm : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 12.0	GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance cm3/1000s.		control lever position degree : - 1
Spreed Tolerance	· · ·	Rated speed rpm : 1570 Rack travel in mm : 13.50
cm3/1000 strokes Check tolerance cm3/1000s.	: 3.5 : 5.5	Tolerance mm : +- 2.00
0.07 70005.		FULL LOAD DELIVERY AT FULL LOAD STOP
(B) SETTING OF IN WITH GOVERNOR	VUECTION PUMP	Rated speed rpm : 1300 Aneroid pressure hPa : 1200
GUIDE SLEEVE TRAN	JEL .	+ Del. quantity + cm3/1000 strokes : 133.0
Rated speed rpm guide sleeve	: 300	Tolerance - cm3/1000 strokes : +- 1.0 - Check tolerance
travel mm Tolerance mm	: 1.02 : + 0.25	- cm3/1000s. : +- 4.0 - Spreed
Rated speed rpm guide sleeve	: 1354	Tolerance + cm3/1000 strokes : 4.0
travel mm Tolerance mm	: 6.72 : ← 0.25	Check tolerance cm3/1000s. : 7.5
Rated speed rpm guide sleeve	: 1090	RATED SPEED
travel mm Tolerance mm	: 4.70 : ← 0.25	control lever
Rated speed rpm guide sleeve	: 490	+ position degree : 110.0 + tolerance degree : +- 4.0
travel mm Tolerance mm	: 2.25 : ← 0.25	rack travel mm : 13.40 Rated speed rpm : 1345
Rated speed rpm guide sleeve	: 540	Tolerance 1/min : + 5 rack travel mm : 4.00
travel mm Tolerance mm	: 2.54 : ← 0.25	Rated speed rpm : 1495 Tolerance 1/min : + 15
Rated speed rpm guide sleeve	: 690	rack travel mm : 0.50 Tolerance mm : + 0.50
travel mm Tolerance mm	: 2.97 : ← 0.25	Rated speed rpm : 1600
Rated speed rpm guide sleeve	: 1683	LOW IDLE
travel mm Tolerance mm	: 12.00 : + 0.25	control lever position degree : 63.0

tolerance degree : +- 4.0	+
Testing:	FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 300 rack travel mm : 4.00 Tolerance mm : + 0.10	Aneroid pressure hPa : 1200 Rated speed rpm : 750
Rated speed rpm : 200	Del. quantity cm3/1000 strokes : 132.0
CRT mm min. : > 5.00	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
TÖRQUE CONTROL	Check tolerance cm3/1000s. : +- 5.0 Spreed
Rated speed rpm : 1300 - rack travel mm : 14.40 - Tolerance mm : + 0.05	Tolerance cm3/1000 strokes : 6.0 Check tolerance
Tolerance mm : +- 0.05	cm3/1000s. : 9.0
Rated speed rpm : 750 rack travel mm : 14.40 Tolerance mm : +- 0.10	Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST	cm3/1000 strokes : 46.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
SETTING	- cm3/1000S. : +- 3.0
Rated speed rpm : 500 Pressure hPa : 1200 rack travel mm : 14.40 Tolerance mm : +- 0.10 MEASUREMENT	BREAKAWAY Rack travel in mm: 13.40 Rated speed rpm: 1345 Tolerance 1/min: +- 5
Pressure hPa : - Rated speed rpm : 500 rack travel mm : 9.40	- STARTING FUEL DELIVERY
Tolerance mm : + 0.05	- Rated speed rpm : 100
Rated speed rpm : 500	- Del. quantity - cm3/1000 strokes : 160.0
Pressure hPa : 800 rack travel mm : 13.70 Tolerance mm : +- 0.10	- Tolerance - cm3/1000 strokes : +- 5.0 - Check tolerance
Pressure hPa : 450 rack travel mm : 11.30 Tolerance mm : + 0.10	- cm3/1000s. : +- 8.0
START CUT-OUT	- LOW IDLE
Rated speed rpm : < 200	Del. quantity cm3/1000 strokes : 12.0
Check speed 1/min : < 220	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
Ŧ	cm3/1000s. : +- 4.5

3.5

Spreed
Tolerance
cm3/1000 strokes :
Check tolerance
cm3/1000s. :

5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 08.04.93 Edition : U8.U4.95 Test oil : ISO 4113

Combination No. : 0402646969

Injection pump

Pump designation : PE6P12OA32ORS7248Z

EP type number : 0412626862

Governor

Governer design. : RQV275...1150PA986

Governer no. : 0421813920

Cust. part No. : 1248041

Customer-spec. information : DAF Customer

Motor

: RS 200 L

Power KW

: 200.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

· + 2.0

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity min. l/h : 130 Tolerance l/h : +- 10.0

Test nozzle holde

assembly

: 1688901105

Opening pressure

bar

208.5

Tolerance bar

1.5

Test Lines : 1680750089

Outside diameter : 8.0

x inside diameter:

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 11.50

Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm :

1000

Rack cravel in mm: 11.35

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 167.0	†
Tolerance	+ RATED SPEED
Check tolerance cm3/1000s. : +- 4.0	control lever position degree : 120.0 tolerance degree : +- 4.0
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 10.30 Rated speed rpm : 1185 Tolerance 1/min : + 5
Check tolerance cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1290 Tolerance 1/min : +- 15
2nd speed rpm : 275	+
Rack travel in mm : 5.30 Tolerance mm : + 0.10 Del. quantity	+ rack travel mm : 0.70 + Tolerance mm : + 0.70 Rated speed rpm : 1450
cm3/1000 strokes : 16.0	
Tolerance cm3/1000 strokes : +- 3.0 Check tolerance	+ LOW IDLE
cm3/1000S. : +- 6.0 Spreed Tolerance	control lever position degree : 83.0
cm3/1000 strokes : 8.0	tolerance degree : + 4.0
Check tolerance cm3/1000S. : 12.0	† Testing:
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 275 rack travel mm : 4.70 Tolerance mm : + 0.10
MILL GOACUAOK	Rated speed rpm : 175
GUIDE SLEEVE POSITION	CRT mm min. : > 6.70
Rated speed rpm : 1335	CONTINUOUS-ACTION CONTROL
Rack travel in mm : 10.30 Tolerance mm : + 1.30	Rated speed rpm : 340
FULL LOAD DELIVERY AT FULL LOAD STOP	ANEROID/ALTITUDE COMPENSATOR TEST
Del. quantity cm3/1000 strokes : 167.0	‡
Tolerance cm3/1000 strokes : +- 1.0	+ SETTING
Check tolerance cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 600 rack travel mm : 11.35 Tolerance mm : +- 0.05
Tolerance cm3/1000 strokes : 5.0 Check tolerance	MEASUREMENT
cm3/1000S. : 9.0	Rated speed rpm : 600 rack travel mm : 9.20

Tolerance mm : \leftarrow 0.10

Rated speed rpm : 600

rack travel mm : 9.70 Tolerance mm : ← 0.10

rack travel mm : 10.75 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Del. quantity

cm3/1000 strokes : 117.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm : 10.30
Rated speed rpm : 1185
Tolerance 1/min : + 5

LOW IDLE

Rated speed rpm : 275 rack travel mm 5.30 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 19.01.93 : ISO 4113

Combination No. : 0402646984

Injection pump

Pump designation : PE6P120A320RS7248

EP type number : 0412626861

Governor

Governer design. : RQ275/1150PA987

Governer no. : 0421801578

Cust. part No. : 1248030

Customer-spec. information Customer : DAF

Motor

: RS 222 L : 222.0

Power KW

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: **←** 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde assembly

: 1688901105

Opening pressure

bar Tolerance bar : + 1.5

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

RFMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Prestroke mm : 5.25 Tolerance mm : +- 0.05

test only : +- 0.10

Rack travel in mm: 12.50 Tolerance mm : + 0.50

: 1-5- 3- 6- 2-: 4 Firing order

Phasing : 0-60-120-180-240

: -300 Tolerance : **←** 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.25 Tolerance mm

Del. quantity

cm3/1000 strokes : 187.0

•		+ Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes	: +- 1.0	+ Rated speed rpm : 1370 + guide sleeve
Check tolerance cm3/1000s.	: + 4.0	travel mm : 11.50 Tolerance mm : + 0.50
Spreed		T
Tolerance cm3/1000 strokes	: 5.0	+ GUIDE SLEEVE POSITION + Rated speed rpm : 550
Check tolerance cm3/1000s.	: 9.0	Rack travel in mm: 15.80
2nd speed rpm	: 275	Tolerance mm : + 0.60
Rack travel in m Tolerance mm		FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes		Del. quantity cm3/1000 strokes : 187.0
Tolerance cm3/1000 strokes Check tolerance	: - 3.0	+ Tolerance + cm3/1000 strokes : + 1.0
cm3/1000s. Spreed	: + 6.0	+ Check tolerance + cm3/1000S. : +- 4.0 + Spreed
Tolerance cm3/1000 strokes Check tolerance	: 8.0	+ Tolerance + cm3/1000 strokes : 5.0
cm3/1000s.	: 12.0	Check tolerance cm3/1000S. : 9.0
(B) SETTING OF IN	WECTION PUMP	RATED SPEED
GUIDE SLEEVE TRAV	/FI	control lever position degree : 104.0
Rated speed rpm		tolerance degree : + 4.0
guide sleeve		rack travel mm : 11.20
travel mm Tolerance mm	: 1.78 : +- 0.10	Rated speed rpm : 1208 Tolerance 1/min : +- 8
Rated speed rpm guide sleeve		rack travel mm : 4.00 Rated speed rpm : 1290
travel mm Tolerance mm	: 6.48 : +- 0.10	+ Tolerance 1/min : +- 15
Rated speed rpm guide sleeve	: 1150	+ rack travel mm : 0.70 + Tolerance mm : +- 0.70 + Rated speed rpm : 1450
travel mm Tolerance mm	: 6.00 : +- 0.10	
Rated speed rpm guide sleeve	: 350	+ LOW IDLE
travel mm Tolerance mm	: 4.05 : +- 0.10	control lever position degree : 74.0
Rated speed rpm	: 450	tolerance degree : +- 4.0
guide sleeve travel mm	: 6.00	† Testing:

Rated speed rpm rack travel mm Tolerance mm	: 275 : 4.70 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 340 : + 20
Rated speed rpm	: 175
CRT mm min.	: > 7.00
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 12.25 : + 0.05
MEASUREMENT	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 9.40 : + 0.10
Rated speed rpm	: 600
rack travel mm Tolerance mm	: 10.40 : + 0.10
rack travel mm Tolerance mm	: 11.65 : +- 0.05
FUEL DELIVERY CHARACTERISTICS	
Del. quantity cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance	: ← 1.0
cm3/1000s.	: + 4.0

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm	: +-	275 5.40 0.10
Del. quantity cm3/1000 strokes	:	16.0
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	6.0
Spreed Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance cm3/1000s.	:	12.0

BREAKAWAY

Rack travel in mm : 11.20
Rated speed rpm : 1208
Tolerance 1/min : ← 8

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 18.06.93 Test oil : ISO 4113

Combination No. : 0402046851

Injection pump

Pump designation : PES6P120A320RS3290

EP type number : 0412026765

Governor

Governer design. : RQ300/1050PA999-5

Governer no. : 0421801663

Cust. part No. : CCEP 5137

Customer-spec. information

Customer : RVI

Motor : MIHR 062045 B3

Power KW : 152.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 155 Tolerance l/h : + 15.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar Tolerance bar : + 1.5 Test lines : 1680750089

Outside diameter : 8.0

x inside diameter : 3.0

600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm : 18.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.30

Check

tolerance "NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

+	guide sleeve
Souly Americal Street	travel mm : 4.14
Rack travel in mm : 12.80 + Tolerance mm : + 0.05 +	Tolerance mm : + 0.10
Del. quantity	Rated speed rpm : 710
cm3/1000 strokes : 154.0	guide sleeve travel mm : 6.00
Tolerance	Tolerance mm : +- 0.10
cm3/1000 strokes : + 1.0	Rated speed rpm : 1380 guide sleeve
Check tolerance	travel mm : 11.50
cm3/1000s. : +- 4.0	Tolerance mm : + 0.50
Spreed	
Tolerance cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
+	Rated speed rpm : 1050
Check tolerance cm3/1000s. : 9.0	Rack travel in mm : 20.80
<u> </u>	Tolerance mm : +- 0.80
2nd speed rpm : 275	
Rack travel in mm: -4.80	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm : + 0.20 +	TODE LOAD DELIVERY AT TOLL EDAD STOP
Del. quantity	Rated speed rpm : 700
cm3/1000 strokes : 21.0	Del. quantity cm3/1000 strokes : 154.0
cm3/1000 strokes : + 2.0	cm3/1000 strokes : 154.0 Tolerance
Check tolerance	cm3/1000 strokes : +- 1.0
cm3/1000s. : + 5.0	Check tolerance
Spreed Tolerance	cm3/1000S. : +- 4.0 Spreed
cm3/1000 strokes : 8.0 I	Tolerance
Check tolerance	cm3/1000 strokes : 5.0
cm3/1000S. : 12.0	Check tolerance
<u>†</u>	cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	RATED SPEED
	rack travel mm : -1.00
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1120
Rated speed rpm : 275	Tolerance 1/min : +- 5
guide sleeve	rack travel mm : -8.80
travel mm : 1.89 +	Rated speed rpm : 1250
Tolerance mm : + 0.10	Tolerance 1/min : + 15
Rated speed rpm : 1127	rack travel mm : -12.30
guide sleeve travel mm : 6.36	Tolerance mm : + 0.55
Tolerance mm : + 0.10	Rated speed rpm : 1350
Rated speed rpm : 1050	LOW IDLE
guide sleeve + travel mm : 6.00 +	Tarkina
travel mm : 6.00 + Tolerance mm : + 0.10	Testing:
+	Rated speed rpm : 275
Rated speed rpm : 469	rack travel mm : -4.80

Tolerance mm	: +- 0.10	+ Del. quantity
Rated speed rpm	: 200	cm3/1000 strokes : 153.0 Tolerance
CRT mm max.	: < -6.80	+ cm3/1000 strokes : +- 3.0 + Check tolerance
		cm3/1000s. : + 6.0
CONTINUOUS-ACTIO	N CONTROL	Rated speed rpm : 700
Rated speed rpm	: 300	Del. quantity cm3/1000 strokes : 100.0 Tolerance
TORQUE CONTROL		cm3/1000 strokes : +- 5.0 Check tolerance
Rated speed rpm	: 700	+ cm3/1000s. : +- 8.0 + Spreed
Rated speed rpm Tolerance mm		Tolerance cm3/1000 strokes : 10.0 Check tolerance
		cm3/1000s. : 14.0
Rated speed rpm rack travel mm Tolerance mm	: -4.00 : -4.00	Rated speed rpm : 500
		Del. quantity - cm3/1000 strokes : 122.0
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000 strokes : + 1.0 Check tolerance
		cm3/1000s. : +- 4.0
SETTING		
Rated speed rpm	: 500	+ BREAKAWAY +
MEASUREMENT		Rack travel in mm: -1.00
Rated speed rpm	: 500	Rated speed rpm : 1120 Tolerance 1/min : +- 5
Rated speed rpm rack travel mm Tolerance mm	: -0.90 : +- 0.20	‡
Rated speed rpm	: 500	STARTING FUEL DELIVERY
rack travel mm Tolerance mm	: -0.30 : ← 0.10	Rated speed rpm : 100 Del. quantity
rack travel mm		+ cm3/1000 strokes : 155.0
Tolerance mm	: -0.65 : +- 0.05	+ Tolerance + cm3/1000 strokes : +- 15.0
		+ Check tolerance + cm3/1000s. : +- 19.0
START CUT-OUT		<u> </u>
Rated speed rpm Check	: > 100	<u> </u>
speed 1/min Rated speed rpm	: > 80 : < 195	LOW IDLE
Check speed 1/min	: < 215	Rated speed rpm : 275 rack travel mm : -4.80
opeca irmii		+ Tolerance mm : + 0.20
FUEL DELIVERY CHA	RACTERISTICS	
Rated speed rpm	: 1050	+ Tolerance + cm3/1000 strokes : +- 2.0

cm3/1000s.	: +	5.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 04.10.93 Test oil : ISO 4113

Combination No. : 0402646627

Injection pump

Pump designation : PE6P120A320RS7297

EP type number : 0412626884

Governor

Governer design. : RQV350...1100PA795

: -12

Governer no. : 0421813914

Cust. part No. : 1340653

Customer—spec. information Customer : SCANIA Motor : DSC 909

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 210 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1688901104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5

Lube oil : 1409918004

Test lines : 1680750008

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 13.00 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

Tolerance : + 0.30

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

K03

Rack travel in mm : 13.25 Tolerance mm : + 0.05	Tolerance cm3/1000 strokes : 8.0 Check tolerance
Del. quantity cm3/1000 strokes : 205.0	cm3/1000s. : 12.0
Tolerance	RATED SPEED
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 47.0 tolerance degree : + 4.0
Spreed Tolerance cm3/1000 strokes : 8.0	control lever position degree : 106.0 tolerance degree : +- 4.0
Check tolerance : 12.0	rack travel mm : 12.20 Rated speed rpm : 1145 Tolerance 1/min : +- 5
2nd speed rpm : 350	· · · · · · · · · · · · · · · · · · ·
Rack travel in mm: 4.90 Tolerance mm: + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1270 Tolerance 1/min : +- 15
cm3/1000 strokes : 26.0 Tolerance	rack travel mm : 0.50 Tolerance mm : +- 0.50
cm3/1000 strokes : + 3.0 + Check tolerance	Rated speed rpm : 1400
cm3/1000s. : + 6.0 + 5preed	LOW IDLE
Tolerance cm3/1000 strokes : 4.0	
Check tolerance cm3/1000s. : 8.0	control lever position degree : 74.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 15.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 1300	Rated speed rpm : 350 rack travel mm : 4.90 Tolerance mm : +- 0.10
Rack travel in mm: 12.00	Tolerance mm : +- 0.10
Tolerance mm : + 1.30	rack travel mm : 2.00 Rated speed rpm : 400
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 30
Rated speed rpm : 700	Rated speed rpm : 250 ^
Del. quantity cm3/1000 strokes : 205.0	CRT mm min. :> 8.00
Tolerance cm3/1000 strokes : + 1.0 Check tolerance	TORQUE CONTROL
cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 1100 rack travel mm : 13.25

Tolerance mm : +-	- 0.05
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ANEROID/ALTITUDE COMPENSATOR TEST

MEASUREMENT

rack travel mm : 11.95 Tolerance mm : + 0.25

rack travel mm 12.85 Toterance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 1100 Del. quantity cm3/1000 strokes :

183.0

Tolerance

cm3/1000 strokes : +-4.0

Check tolerance

cm3/1000s. 6.0

Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 170.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s.4.0

BREAKAWAY

Rack travel in mm : 12.20 Rated speed rpm : 1145 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.50 Tolerance mm : + 0.50Del. quantity cm3/1000 strokes : 265.0

Tolerance

cm3/1000 strokes : \leftarrow 20.0

Check tolerance cm3/1000s.

: **←** 25.0

LOW IDLE

Rated speed rpm	:		350
rack travel mm	:		4.90
Tolerance mm	:	+	0.30
Del. quantity			
cm3/1000 strokes	:		26.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000s.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 14.10.93 Edition Test oil : ISO 4113

Combination No. : 0402646793

Injection pump

Pump designation: PE6P120A320LS7846

EP type number : 0412626865

Governor

Governer design. : RQ300/1050PA1030-8

Governer no. : 0421801673

Cust. part No. : 0230749502

Customer-spec. information : MB-NFZ Customer Motor : 0M401 LA Power KW : 213.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : +- 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

Tolerance bar

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter:

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 : + 0.30

Check

Tolerance

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 1050

K06

		•	*
Rack travel in mm Tolerance mm		‡	guide sleeve travel mm : 4.78 Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes	: 202.0	 ‡	Rated speed rpm : 480 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	‡	travel mm : 6.00 Tolerance mm : +- 0.10
Check tolerance cm3/1000s.	: + 4.0	 ‡	Rated speed rpm : 1280 guide sleeve travel mm : 11.50
Spreed Tolerance		+	Tolerance mm : + 0.50
cm3/1000 strokes	: 5.0	<u> </u>	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 9.0	+	Rated speed rpm : 600
2nd speed rpm	: 300	İ	Rack travel in mm : 20.00 Tolerance mm : +- 0.80
Rack travel in mm Tolerance mm Del. quantity		 	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Tolerance		Ţ	Rated speed rpm : 1050 Del. quantity
cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : ← 6.0	Ī	cm3/1000 strokes : 202.0 Tolerance cm3/1000 strokes : +- 1.0
Spreed Tolerance		+	Check tolerance cm3/1000s. : +- 4.0
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 : 10.0	‡	Spreed Tolerance cm3/1000 strokes : 5.0
		+	Check tolerance cm3/1000s. : 9.0
(B) SETTING OF INJ WITH GOVERNOR	ECTION PUMP	‡	RATED SPEED
GUIDE SLEEVE TRAVE		<u> </u>	RATED SPEED
Rated speed rpm guide sleeve	: 300	+	control lever position degree : 93.0 tolerance degree : + 4.0
travel mm Tolerance mm	: 2.58 : + 0.10	‡	rack travel mm : 11.35 Rated speed rpm : 1098
مريقول والمصرو	: 1103	‡	Tolerance 1/min : + 8
travel mm Tolerance mm	: 6.37 : +- 0.10	‡	rack travel mm : 4.00 Rated speed rpm : 1180 Tolerance 1/min : +- 15
guide sleeve	: 1050	‡ † † †	rack travel mm : 0.75
travel mm Tolerance mm	: 6.00 : + 0.10	‡	Tolerance mm : +- 0.75 Rated speed rpm : 1300
Rated speed rpm	: 394	‡	LOW IDLE

control lever		+ Tolerance + cm3/1000 strokes : +- 2.0 + Check tolerance
position degree tolerance degree	: 74.0 : ← 4.0	+ cm3/1000s. : +- 5.0 + Spreed
Testing:		Tolerance cm3/1000 strokes : 8.0
Rated speed rpm	: 300 : 5.70	Check tolerance cm3/1000s. : 12.0
rack travel mm Tolerance mm	: +- 0.10	Rated speed rpm : 400 Del. quantity
rack travel mm Rated speed rpm	: 380	cm3/1000 strokes : 150.0 Tolerance
Tolerance 1/min	_	+ cm3/1000 strokes : + 1.5 + Check tolerance
Rated speed rpm	: 200	+ cm3/1000s. : +- 4.5
CRT mm min.	: > 8.00	Rated speed rpm : 500 Del. quantity
TORQUE CONTROL		- + cm3/1000 strokes : 127.0 + Tolerance
Rated speed rpm	: 1050	+ cm3/1000 strokes : + 1.0 + Check tolerance
rack travel mm Tolerance mm	: 12.35 : + 0.05	+ cm3/1000s. : +- 4.0 + Spreed
Rated speed rpm rack travel mm	: 550	Tolerance cm3/1000 strokes : 8.0
Tolerance mm	: + 0.05	Check tolerance cm3/1000s. : 12.0
ANEROID/ALTITUDE COMPENSATOR TEST		BREAKAWAY
SETTING		Rack travel in mm: 11.35 Rated speed rpm: 1098
Rated speed rpm rack travel mm Tolerance mm	: 400 : 12.35 : ← 0.05	Tolerance 1/min : +- 8
MEASUREMENT		STARTING FUEL DELIVERY
Rated speed rpm	: 400	+ Rated speed rpm : 100 + rack travel mm : 10.10
rack travel mm Tolerance mm	: 9.85 : + 0.15	Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 55.0
rack travel mm	: 10.70	+ Tolerance + cm3/1000 strokes : +- 15.0
Tolerance mm	: + 0.10	+ Check tolerance - cm3/1000S. : + 19.0
FUEL DELIVERY CHAR	 VACTERISTICS	- ‡
Rated speed rpm		LOUTING
Del. quantity		+ LOW IDLE
cm3/1000 strokes	: 197.0	Rated speed rpm : 300 rack travel mm : 5.70

Tolerance mm	: +-	0.30
Del. quantity cm3/1000 strokes	:	19.0
Tolerance		7.0
cm3/1000 strokes Check tolerance	: +	3.0
cm3/1000s.	: +-	6.0
Spreed Tolerance		
cm3/1000 strokes	:	6.0
Check tolerance cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 26.10.93 Test oil : ISO 4113

Combination No. : 0402735808

Injection pump

Pump designation : PES5P120A720/3LS7250

EP type number : 0412725809

Governor

Governer design. : RQV325...1000PA962

: -10K

Governer no. : 0421815363

Cust. part No. : 3-7294 AE1

Customer-spec. information

Customer : MAN

Motor : 02865 LUH 03

Power KW : 235.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 120 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Lube oil : 1409918004

K10

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.85 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 15.50 Tolerance mm : + 0.50

Firing order : 1-3-5-4-2

Phasing : 0-72-144-216-288

Tolerance : \leftarrow 0.30

Check

tolerance °NW : \leftarrow 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 5

BASIC SETTING

Rated speed rpm : 900	Rated speed rpm : 500 guide sleeve
Rack travel in mm : 12.45 Tolerance mm : + 0.05	travel mm : 4.42 Tolerance mm : + 0.20
Del. quantity	Rated speed rpm : 1280
cm3/1000 strokes : 261.0	guide sleeve travel mm : 13.50
Tolerance	Tolerance mm : + 0.50
cm3/1000 strokes : +- 1.0	GUIDE SLEEVE POSITION
Check tolerance	
cm3/1000s. : +- 4.0 -	Rated speed rpm : 1150
Spreed	Rack travel in mm : 11.30
Tolerance cm3/1000 strokes : 5.0	Tolerance mm : +- 2.00
Check tolerance cm3/1000s. : 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : 9.0	Rated speed rpm : 900
2nd speed rpm : 325	- Del. quantity
Rack travel in mm : 5.40	- cm3/1000 strokes : 261.0 - Tolerance
Tolerance mm : + 0.20	cm3/1000 strokes : +- 1.0
Del. quantity	- Check tolerance
cm3/1000 strokes : 50.0 - Tolerance	- cm3/1000s. : +- 4.0 - Spreed
cm3/1000 strokes : + 3.0	- Tolerance
Check tolerance cm3/1000s. : +- 6.0	- cm3/1000 strokes : 5.0
cm3/1000s. : +- 6.0 Spreed	- Check tolerance - cm3/1000s. : 9.0
Tolerance	-
cm3/1000 strokes : 10.0 Check tolerance	DATED COLLA
cm3/1000s. : 14.0	- RATED SPEED -
+	•
(B) SETTING OF INJECTION PUMP	- control lever - position degree : 289.0
WITH GOVERNOR	tolerance degree : +- 4.0
	•
GUIDE SLEEVE TRAVEL	- rack travel mm : 11.20 - Rated speed rpm : 1045
Retad aread area 225	Tolerance 1/min : + 5
Rated speed rpm : 325 guide sleeve	rack travel mm : 4.00
travel mm : 3.02	- Rated speed rpm : 1130
Tolerance mm : + 0.10	Tolerance 1/min : +- 15
Rated speed rpm : 1055	rack travel mm : 0.50
guide sleeve	Tolerance mm : +- 0.50
travel mm : 9.01 + O.10	Rated speed rpm : 1250
4	
Rated speed rpm : 800	LOW IDLE
guide sleeve travel mm : 6.05	
Tolerance mm : + 0.20	control lever
+	position degree : 245.0

tolerance degree : +- 4.0	†
Testing:	START CUT-OUT
Rated speed rpm : 325 rack travel mm : 5.40 Tolerance mm : + 0.10	Rated speed rpm : < 280 Check speed 1/min : < 300
Rated speed rpm : 250	
CRT mm min. : > 6.90	FUEL DELIVERY CHARACTERISTICS
	Rated speed rpm : 1000 Del. quantity
CONTINUOUS-ACTION CONTROL	+ cm3/1000 strokes : 247.0 + Tolerance
Rated speed rpm : 350	cm3/1000 strokes : +- 3.0 + Check tolerance
TORQUE CONTROL	
Rated speed rpm : 900	Rated speed rpm : 650 Del. quantity
rack travel mm : 12.45 Tolerance mm : +- 0.05	cm3/1000 strokes : 273.0 Tolerance
Rated speed rpm : 1000	cm3/1000 strokes : +- 3.0 Check tolerance
rack travel mm : 12.20 Tolerance mm : + 0.10	cm3/1000s. : +- 6.0
	Rated speed rpm : 650
Rated speed rpm : 650 rack travel mm : 12.20 Tolerance mm : + 0.10	+ Del. quantity + cm3/1000 strokes : 95.0 + Tolerance
Rated speed rpm : 650	+ cm3/1000 strokes : +- 5.0
rack travel mm : 5.50 Tolerance mm : + 0.10	+ Check tolerance + cm3/1000S. : + 8.0 + Spreed
	+ Tolerance
ANEROID/ALTITUDE	
COMPENSATOR TEST	+ cm3/1000s. : 14.0
SETTING	Rated speed rpm : 500 Del. quantity
Rated speed rpm : 900	cm3/1000 strokes : 135.0 Tolerance
rack travel mm : 12.45 Tolerance mm : +- 0.05	cm3/1000 strokes : +- 1.0 Check tolerance
MEASUREMENT	cm3/1000s. : +- 4.0
Rated speed rpm : 900 rack travel mm : 7.70 Tolerance mm : + 0.10	+ BREAKAWAY +
	+ + Rack travel in mm : 11.20
Rated speed rpm : 900	+ Rated speed rpm : 1045 + Tolerance 1/min : +- 5
rack travel mm : 11.15 Tolerance mm : + 0.15	‡
rack travel mm : 8.05 Tolerance mm : + 0.05	STARTING FUEL DELIVERY

Rated speed rpm	: 100	
rack travel mm	: 9.30	
Tolerance mm	: ← 0.25	
Tolerance	4= -	
cm3/1000 strokes	: ← 15.0	
Check tolerance	40.0	
cm3/1000s.	: +- 19.0	

LOW IDLE

Rated speed rpm	:		325
rack travel mm	:		5.40
Tolerance mm	:	+-	0.20
Del. quantity			
cm3/1000 strokes	:		50.0
Tolerance			
cm3/1000 strokes	:	+	3.0
Check tolerance			
cm3/1000s.	:	+-	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		10.0
Check tolerance			
cm3/1000s.	:		14.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 26.10.93 : ISO 4113

Combination No. : 0402736825

Injection pump

Pump designation : PES6P120A720/3LS7251

EP type number : 0412726860

Governor

Governer design. : RQV300...1000PA962

: -8K

Governer no.

: 0421815303

Cust. part No. : 3-7206

Customer-spec. information

Customer : MAN

Motor : D2866LF09

Power KW : 309.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5

Test nozzle holde

: 1688901105 assembly

Opening pressure

: 208.5 : + 1.5 bar Tolerance bar

Lube oil : 1409918004

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter : 3.0

x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar $: \leftarrow 1.0$

Prestroke mm : 4.85 Tolerance mm : + 0.05

test only : **←** 0.10

Rack travel in mm: 15.50 Tolerance mm : + 0.50

: 6-2-4-1-5-: 3 Firing order

: 0-60-120-180-240 Phasing

: -300 Tolerance : ← 0.30

Check

tolerance °NW : ← 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 13.95

Tolerance mm : + 0.05	Check tolerance cm3/1000s. : 9.0
Del. quantity cm3/1000 strokes : 296.0	RATED SPEED
Tolerance cm3/1000 strokes : + 1.0	
Check tolerance cm3/1000s. : + 4.0	control lever position degree : 291.0 tolerance degree : +- 4.0
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 12.40 Rated speed rpm : 1045 Tolerance 1/min : +- 5
Check tolerance cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1140 Tolerance 1/min : +- 15
2nd speed rpm : 300	
Rack travel in mm : 5.20 Tolerance mm : + 0.20 Del. quantity	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1300
cm3/1000 strokes : 32.0	LOW IDLE
cm3/1000 strokes : +- 3.0 Check tolerance	LOW IDEE
cm3/1000s. : + 6.0 + Spreed	control lever position degree : 247.0
Tolerance + cm3/1000 strokes : 8.0 +	tolerance degree : + 4.0
Check tolerance cm3/1000s. : 12.0	Testing:
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.10
‡	Rated speed rpm : 200
GUIDE SLEEVE POSITION	CRT mm min. : > 7.30
Rated speed rpm : 1130	CONTINUOUS-ACTION CONTROL
Rack travel in mm : 12.40 Tolerance mm : + 2.00	Rated speed rpm : 300
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 900	Rated speed rpm : 900 rack travel mm : 13.95
Del. quantity cm3/1000 strokes : 296.0	rack travel mm : 13.95 Tolerance mm : +- 0.05
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 1000
Check tolerance \downarrow	rack travel mm : 13.50 Tolerance mm : +- 0.10
cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 750
Tolerance cm3/1000 strokes : 5.0	Rated speed rpm : 750 rack travel mm : 13.40 Tolerance mm : +- 0.10

Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE	: 6.50 : ← 0.10	Del. quantity cm3/1000 strokes : 109.0 Tolerance cm3/1000 strokes : +- 5.0 Check tolerance cm3/1000s. : +- 8.0 Spreed
COMPENSATOR TEST		- Tolerance - cm3/1000 strokes : 10.0 - Check tolerance
SETTING	_	- cm3/1000s. : 14.0
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.95 : +- 0.05	- Rated speed rpm : 500 - Del. quantity - cm3/1000 strokes : 169.0
MEASUREMENT	 	- Tolerance - cm3/1000 strokes : +- 1.0
Rated speed rpm rack travel mm Tolerance mm		- Check tolerance - cm3/1000s. : +- 4.0
Rated speed rpm	4	- BREAKAWAY
rack travel mm Tolerance mm	: 12.00	Rack travel in mm : 12.40 Rated speed rpm : 1045
rack travel mm Tolerance mm		Tolerance 1/min : +- 5
		STARTING FUEL DELIVERY
START CUT-OUT	4	OWNITED FOLL AFFIACIVE
Rated speed rpm Check	1	Del. quantity cm3/1000 strokes : 210.0 Tolerance
Rated speed rpm Check speed 1/min Rated speed rpm	:> 80	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Rated speed rpm Check speed 1/min	:> 80	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 10.0
Rated speed rpm Check speed 1/min Rated speed rpm Check	: > 80 : < 240 : < 260	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA	: > 80 : < 240 : < 260	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000S. : +- 14.0 LOW IDLE
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes	: > 80 : < 240 : < 260 ARACTERISTICS : 1000	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : +- 0.20 Del. quantity
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Rated speed rpm Del. quantity	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0 : + 3.0 : + 6.0 : 750	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 32.0
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Rated speed rpm Del. quantity cm3/1000s. Rated speed rpm Del. quantity cm3/1000s.	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0 : + 3.0 : + 6.0 : 750 : 287.0	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Rated speed rpm Del. quantity cm3/1000s. Rated speed rpm Del. quantity cm3/1000s.	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0 : + 3.0 : + 6.0 : 750 : 287.0 : + 3.0	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm Check speed 1/min Rated speed rpm Check speed 1/min FUEL DELIVERY CHA Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Rated speed rpm Del. quantity cm3/1000s. Rated speed rpm Del. quantity cm3/1000s.	: > 80 : < 240 : < 260 ARACTERISTICS : 1000 : 269.0 : + 3.0 : + 6.0 : 750 : 287.0	Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.93 Test oil : ISO 4113

Combination No. : 0402646619

Injection pump

Pump designation : PE6P120A720RS71880

EP type number : 0412626846

Governor

Governer design. : RQV200...950PA725

: -11

Governer no. : 0421814033

Cust. part No. : 1340417

Customer-spec. information Customer : SCANIA Motor : DSC 11 35

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : : + 0.1 Tolerance bar

Tolerance 1/h : **←** 10.0

Test nozzle holde

: 1688901104 assembly

Opening pressure

Tolerance bar

Test lines : 1680750008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 4.45 Tolerance mm : **←** 0.05

test only : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

: 1-5- 3- 6- 2-: 4 Firing order

Phasing : 0-60-120-180-240

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.75 Tolerance mm : +- 0.05

Del. quantity + cm3/1000 strokes : 220.0 +	
Tolerance	RATED SPEED
cm3/1000 strokes : + 1.0	control lever
Check tolerance cm3/1000S. : + 4.0	position degree : 62.0 tolerance degree : +- 4.0
Spreed Tolerance cm3/1000 strokes : 8.0	control lever position degree : 116.0 tolerance degree : +- 4.0
Check tolerance cm3/1000s. : 12.0	rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5
2nd speed rpm : 250	
Rack travel in mm: 4.70 Tolerance mm: + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1110 Tolerance 1/min : +- 15
cm3/1000 strokes : 17.0 Tolerance	rack travel mm : 0.50 Tolerance mm : + 0.50
cm3/1000 strokes : + 3.0 Check tolerance	Rated speed rpm : 1250
cm3/1000s. : +- 6.0 +- Spreed	LOW IDLE
Tolerance cm3/1000 strokes : 4.0	
Check tolerance cm3/1000s. : 8.0	control lever position degree : 64.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 10.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 1150	Rated speed rpm : 250 rack travel mm : 4.70 Tolerance mm : +- 0.10
Rack travel in mm: 9.50 Tolerance mm: + 2.50	rack travel mm : 2.00 Rated speed rpm : 400 Tolerance 1/min : +- 30
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 150
Rated speed rpm : 700 Del. quantity	CRT mm min. : > 6.00
cm3/1000 strokes : 220.0 Tolerance	
cm3/1000 strokes : +- 1.0 Check tolerance	TORQUE CONTROL
cm3/1000s. : + 4.0	Rated speed rpm : 950 rack travel mm : 12.75
Tolerance cm3/1000 strokes : 8.0	rack travel mm : 12.75 Tolerance mm : + 0.05
Check tolerance cm3/1000s. : 12.0	

ANEROID/ALTITUDE COMPENSATOR TEST

MEASUREMENT

rack travel mm	: 11.00
Tolerance mm	: + 0.15
rack travel mm	: 12.05
Tolerance mm	: ← 0.05

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm Del. quantity	: 950
7/4000	: 206.0
cm3/1000 strokes Check tolerance	: +- 4.0
cm3/1000s.	: ← 6.0
Rated speed rpm	: 500
Del. quantity cm3/1000 strokes	: 500 : 115.0
Del. quantity	

BREAKAWAY

Rack travel in mm	:		11.70
Rated speed rpm	:		995
Tolerance 1/min	:	+-	5

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm Tolerance mm	: : +-	100 9.30 0.20
Del. quantity cm3/1000 strokes Tolerance	:	125.0
cm3/1000 strokes	: +-	15.0
Check tolerance cm3/1000s.	: +-	19.0

LOW IDLE

Rated speed rpm	:		250
rack travel mm	:		4.70
Tolerance mm	:	+-	0.30
Del. quantity			
cm3/1000 strokes	:		17.0
Tolerance			
cm3/1000 strokes	:	+-	3.0
Check tolerance			
cm3/1000s.	:	+-	6.0
Spreed			
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000S.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 02.11.93

Test oil

: ISO 4113

Combination No. : 0402646620

Injection pump

Pump designation : PE6P120A720RS7188

EP type number : 0412626832

Governor

Governer design. : RQV300...900PA795

: -17

Governer no.

: 0421814058

Cust. part No. : 1337550

Customer-spec. information Customer

: SCANIA

Motor

: D 11

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

: 1417413025

Inlet press. bar :

Overflow valve

Tolerance bar

: + 5.1

Test nozzle holde

assembly

: 1688901104

Opening pressure

bar

251.5

Tolerance bar

Test lines

: 1680750008

Outside diameter :

6.0

x inside diameter :

2.0

x length mm

600

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 4.45 : + 0.05Tolerance mm

test only : + - 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW

: + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm :

700

Rack travel in mm : 13.35

Tolerance mm : \leftarrow 0.05

Del. quantity + cm3/1000 strokes : 236.0 +	tolerance degree : +- 4.0
Tolerance cm3/1000 strokes : + 1.0	rack travel mm : 12.30 Rated speed rpm : 945 Tolerance 1/min : +- 5
Check tolerance cm3/1000S. : +- 4.0	rack travel mm : 4.00 Rated speed rpm : 1035 Tolerance 1/min : +- 15
Spreed Tolerance cm3/1000 strokes : 8.0	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1150
Check tolerance cm3/1000s. : 12.0	LOW IDLE
2nd speed rpm : 300	LOW IDLE
Rack travel in mm: 4.80 Tolerance mm: + 0.30	control lever position degree : 73.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 15.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 1280	Rated speed rpm : 300 rack travel mm : 4.80 Tolerance mm : +- 0.10
Rack travel in mm: 12.00 Tolerance mm: + 1.30	rack travel mm : 2.00 Rated speed rpm : 345
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : +- 30
Rated speed rpm : 700	Rated speed rpm : 200
Del. quantity cm3/1000 strokes : 236.0 Tolerance	CRT mm min. : > 7.50
cm3/1000 strokes : + 1.0 Check tolerance	TORQUE CONTROL
cm3/1000S. : + 4.0 Spreed Tolerance	Rated speed rpm : 900 rack travel mm : 13.35 Tolerance mm : + 0.05
cm3/1000 strokes : 8.0 Check tolerance	
cm3/1000s. : 12.0	ANEROID/ALTITUDE COMPENSATOR TEST
RATED SPEED	
‡	MEASUREMENT
control lever position degree : 47.0 tolerance degree : +- 4.0	rack travel mm : 11.00 Tolerance mm : + 0.15
control lever position degree : 105.0	rack travel mm : 12.05 Tolerance mm : + 0.05
K22	

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 900

Del. quantity cm3/1000 strokes :

222.0

Tolerance

4.0

cm3/1000 strokes : +-

Check tolerance

cm3/1000s.

8.0

Rated speed rpm

500

Del. quantity cm3/1000 strokes :

153.0

Tolerance

cm3/1000 strokes : +-

1.0

Check tolerance cm3/1000s.

4.0

BREAKAWAY

Rack travel in mm: 12.30

Rated speed rpm Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100

rack travel mm 10.40 : +- 0.20 Tolerance mm

Del. quantity

cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : +-20.0

LOW IDLE

Rated speed rpm 300 rack travel mm 4.80

Tolerance mm 0.30

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.93 Test oil : ISO 4113

Combination No. : 0402646796

Injection pump

Pump designation : PE6P120A320LS7858

EP type number : 0412626875

Governor

Governer design. : RQ300/1050PA1030-5

Governer no. : 0421801665

Cust. part No. : 0230749302

Customer-spec. information Customer : MD-NFZ Motor : 0M401 LA Power KW : 200.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h min. l/h : 110 Tolerance l/h : + 10.0 110

Test nozzle holde

: 1688901105 assembly

Opening pressure

Tolerance bar

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

test only : **←** 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 1050

		l guido al covo
Rack travel in m Tolerance mm	m: 11.75 : +- 0.05	+ guide sleeve + travel mm : 4.93 + Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes	: 190.0	Rated speed rpm : 480 guide sleeve travel mm : 6.00
Tolerance cm3/1000 strokes	: ← 1.0	Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 1280 guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Spreed Tolerance cm3/1000 strokes	: 5.0	GUIDE SLEEVE POSITION
		GOIDE SEELVE POSITION
Check tolerance cm3/1000s.	: 9.0	Rated speed rpm : 600
2nd speed rpm	: 300	+ Rack travel in mm : 20.00 + Tolerance mm : +- 0.80
Rack travel in m Tolerance mm Del. quantity	ח: 5.20 : ← 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Tolerance	: 19.0	Rated speed rpm : 1050 Del. quantity
cm3/1000 strokes Check tolerance	: ← 3.0	+ cm3/1000 strokes : 190.0
cm3/1000s. Spreed	: ← 6.0	+ Tolerance + cm3/1000 strokes : +- 1.0
Tolerance cm3/1000 strokes	: 6.0	+ Check tolerance + cm3/1000s. : +- 4.0
Check tolerance cm3/1000s.		+ Spreed + Tolerance
CIID/ (0003.	: 10.0	cm3/1000 strokes : 5.0 Check tolerance
(B) SETTING OF IN	WECTION PUMP	- cm3/1000s. : 9.0
WITH COULINION		RATED SPEED
GUIDE SLEEVE TRAV	/EL	 ‡
Rated speed rpm guide sleeve		<pre>control lever position degree : 92.0 tolerance degree : +- 4.0</pre>
travel mm Tolerance mm	: 2.59 : +- 0.10	rack travel mm : 10.75
Rated speed rpm guide sleeve	: 1103	+ Rated speed rpm : 1098 + Tolerance 1/min : +- 8
travel mm Tolerance mm	: 6.38 : + 0.10	rack travel mm : 4.00 Rated speed rpm : 1175
Rated speed rpm	: 1050	Tolerance 1/min : +- 15
guide sleeve travel mm	: 6.00	+ rack travel mm : 0.75 + Tolerance mm : +- 0.75
Tolerance mm	: + 0.10	Rated speed rpm : 1300
Rated speed rpm	: 399	LOW IDLE

control lever position degree : 74.0 tolerance degree : + 4.0 Testing: Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 380 Tolerance 1/min : + 20	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 150.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rpm : 200 + CRT mm min. :> 8.00 +	cm3/1000s. : + 4.5 Rated speed rpm : 500
TORQUE CONTROL	Del. quantity cm3/1000 strokes : 127.0 Tolerance
Rated speed rpm : 1050 rack travel mm : 11.75 Tolerance mm : ← 0.05	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000S. : +- 4.0 Spreed
rack travel mm : 11.75 Tolerance mm : + 0.05 Rated speed rpm : 550 rack travel mm : 11.75 Tolerance mm : + 0.05	Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0
ANEROID/ALTITUDE COMPENSATOR TEST	BREAKAWAY
SETTING	Rack travel in mm : 10.75 Rated speed rpm : 1098 Tolerance 1/min : +- 8
Rated speed rpm : 400 rack travel mm : 11.75 Tolerance mm : + 0.05	
MEASUREMENT	STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm : 400	rack travel mm : 9.80 Tolerance mm : + 0.20
rack travel mm : 9.75 Tolerance mm : $\leftarrow 0.15$	Del. quantity cm3/1000 strokes : 55.0 Tolerance
rack travel mm : 10.60	cm3/1000 strokes : + 10.0
Tolerance mm : + 0.10	Check tolerance cm3/1000s. : +- 14.0
FUEL DELIVERY CHARACTERISTICS	

Tolerance mm	: +-	0.30
Del. quantity cm3/1000 strokes	:	19.0
Tolerance cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	6.0
Spreed Tolerance	•	
cm3/1000 strokes Check tolerance	:	6.0
cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.11.93 : ISO 4113

Combination No. : 0402646875

Injection pump

Pump designation : PE6P120A720RS7126Z

EP type number

: 0412626830

Governor

Governer design. : RQ200/1000PA745-1

Governer no. : 0421801472

Cust. part No. : 1116164

Customer-spec. information Customer : SCANIA

Motor

: DSC 11 08

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1688901019

Opening pressure

208.5 Tolerance bar : **←** 1.5

Test lines : 1680750015

Outside diameter : 6.0

x inside diameter: 1.5 600

x length mm ;

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 5.05 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance

: + 0.30Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm 700

Rack travel in mm: 12.85 Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes :

205.0

Tolerance cm3/1000 strokes	: + 1.0	‡	
Check tolerance cm3/1000s.	: ← 4.0	control lever position degree tolerance degree	: 44.0 : + 4.0
Spreed Tolerance cm3/1000 strokes :	6.0	control lever position degree tolerance degree	
Check tolerance cm3/1000s.	9.0	rack travel mm Rated speed rpm Tolerance 1/min	: 11.80 : 1045 : ← 5
2nd speed rpm :	225	+	
Rack travel in mm : Tolerance mm : Del. quantity	4.80 +- 0.30	rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1195 : +- 15
cm3/1000 strokes : Tolerance cm3/1000 strokes :		rack travel mm Tolerance mm	: ← 0.50
Check tolerance		+ Rated speed rpm	: 1300
Spreed	← 4.0	LOW IDLE	
Tolerance cm3/1000 strokes :	3.0	‡	
Check tolerance cm3/1000s. :	6.0	control leverposition degreetolerance degree	
(B) SETTING OF INJE WITH GOVERNOR	CTION PUMP	control lever position degree tolerance degree	: 8.0 : +- 4.0
GUIDE SLEEVE POSITION	ON .	Testing:	
Rated speed rpm :		Rated speed rpm rack travel mm Tolerance mm	: 225 : 4.80 : + 0.10
Rack travel in mm : Tolerance mm :	+ 1.30	rack travel mm Rated speed rpm Tolerance 1/min	: 330
FULL LOAD DELIVERY A	AT FULL LOAD STOP	+ Rated speed rpm	: 125
Rated speed rpm : Del. quantity cm3/1000 strokes :		CRT mm min.	
Tolerance			
cm3/1000 strokes : Check tolerance		+ TORQUE CONTROL	
Spreed Tolerance	+- 4.0	Rated speed rpm rack travel mm Tolerance mm	: 1000 : 12.85 : ← 0.05
Check tolerance	6.0	‡ <u></u>	
cm3/1000s. :	9.0	+ ANEROID/ALTITUDE + COMPENSATOR TEST	
RATED SPEED		‡	
		•	

MEASUREMENT

: 11.30 : + 0.10 rack travel m Tolerance mm

rack travel mm 12.25 : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm : 1000

Del. quantity

cm3/1000 strokes : 201.0

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s. : +- 6.0

Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 144.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +- 4.0

BREAKAWAY

Rack travel in mm: 11.80 Rated speed rpm : 1045 Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 10.50 : + 0.20 Tolerance mm

Del. quantity cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/1000s. : +- 24.0

LOW IDLE

Rated speed rpm : 225 rack travel mm : 4.80 Tolerance mm : + - 0.30 Del. quantity cm3/1000 strokes : Tolerance

20.0

cm3/1000 strokes : +-Check tolerance cm3/1000s.

2.0 4.0

3.0

Spreed Tolerance

cm3/1000 strokes : Check tolerance

cm3/1000S.

6.0

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.11.93 : ISO 4113

Combination No. : 0402646937

Injection pump

Pump designation : PE6P120A720RS71880

EP type number : 0412626846

Governor

Governer design. : RQV200...950PA725-7

Governer no. : 0421813803

Cust. part No. : 1333121

Customer-spec. information Customer : SCANIA

Motor

: DSC11 21

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

: +- 2.0 Tolerance °C

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar

Test nozzle holde

assembly : 1688901104

Opening pressure

bar 251.5

Tolerance bar : +- 1.5

Test lines : 1680750008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

600

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : + - 0.05

test only : **←** 0.10

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.30

Check

tolerance "NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.75

Tolerance mm : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes :

220.0

Tolerance cm3/1000 strokes : +- 1.0	‡
Check tolerance cm3/1000S. : + 4.0	control lever position degree : 112.0 tolerance degree : +- 4.0
Spreed Tolerance cm3/1000 strokes : 8.0	control lever position degree : 60.0 tolerance degree : + 4.0
Check tolerance cm3/1000s. : 12.0	rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5
2nd speed rpm : 250	+
Rack travel in mm: 4.70 Tolerance mm: + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1120 Tolerance 1/min : + 15
cm3/1000 strokes : 16.0	rack travel mm : 0.50
Tolerance cm3/1000 strokes : +- 3.0 Chark tolerance	Tolerance mm : + 0.50 Rated speed rpm : 1250
Check tolerance cm3/1000s. : +- 6.0	
Spreed Tolerance	LOW IDLE
cm3/1000 strokes : 4.0	Ţ
Check tolerance cm3/1000s. : 8.0	control lever position degree : 10.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 62.0 tolerance degree : +- 4.0
CUIDE SI FOUE POSTITION	Testing:
GUIDE SLEEVE POSITION Rated aread area 1150	Rated speed rpm : 250
Rated speed rpm : 1150	rack travel mm : 4.70 Tolerance mm : + 0.10
Rack travel in mm: 9.50 Tolerance mm: + 2.50	rack travel mm : 2.00 Rated speed rpm : 400 Tolerance 1/min : + 30
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 150
Rated speed rpm : 700	+ CRT mm min. :> 6.00
Del. quantity	T (N) (III) (III) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A
cm3/1000 strokes : 220.0	
cm3/1000 strokes : 220.0 Tolerance cm3/1000 strokes : +- 1.0	TORQUE CONTROL
cm3/1000 strokes : 220.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed	TORQUE CONTROL Rated speed rpm : 950 rack travel mm : 12.75
cm3/1000 strokes : 220.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance cm3/1000 strokes : 8.0	TORQUE CONTROL Rated speed rpm : 950
cm3/1000 strokes : 220.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0 Spreed Tolerance	TORQUE CONTROL Rated speed rpm : 950 rack travel mm : 12.75

MEASUREMENT

rack Toler	vel mm e mm	11.00 0.15

rack travel mm	:	12.05
Tolerance mm	: +-	0.05

FUEL DELIVERY CHARACTERISTICS

Rated	speed	rpm	:	950
h - 1 .				

Del. quantity cm3/1000 strokes : 206.0

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s. 6.0

Rated speed rpm 500

Del. quantity cm3/1000 strokes : 153.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm: 11.70 Rated speed rpm : Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 10.50 Tolerance mm : **←** 0.20 Del. quantity cm3/1000 strokes : 165.0 Tolerance

cm3/1000 strokes : \leftarrow 15.0

Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 250 4.70 rack travel mm Tolerance mm 0.30

Del. quantity		
cm3/1000 strokes	:	16.0
Tolerance		
cm3/1000 strokes	: +	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	4.0
Check tolerance		
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.11.93 Test oil : ISO 4113

Combination No. : 0402648932B

Injection pump

Pump designation : PE8P120A320LS7849

EP type number : 0412628864

Governor

Governer design. : RQV300...1050PA1034

Governer no. : 0421813993

Cust. part No. : 9274608

Customer—spec. information
Customer : LIEBHERR
Motor : D 9308 TI
Power KW : 360.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : ← 1.5

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

test only $: \leftarrow 0.10$

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-8-7-2-6 :-3-5-4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm : 14.55 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 264.0

Tolerance cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : + 4.0

Spreed

Check tolerance cm3/1000s. : 9.0 2nd speed rpm : 400 Rack travel in mm : 5.80 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 24.5 Tolerance	
2nd speed rpm : 400 Rack travel in mm : 5.80 Tolerance mm : + 0.20 Del. quantity cm3/1000 strokes : 24.5 Tolerance	
Rack travel in mm: 5.80 Tolerance mm: + 0.20 Del. quantity cm3/1000 strokes: 24.5 Tolerance	
cm3/1000 strokes : + 3.0	>
cm3/1000s. : +- 6.0 + Rated speed rpm : 900 Spreed + Del. quantity	
Tolerance cm3/1000 strokes : 264.0 cm3/1000 strokes : 264.0 Tolerance cm3/1000 strokes : + 1.0	
cm3/1000s. : 10.0	
(B) SETTING OF INJECTION PUMP + Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance	
GUIDE SLEEVE TRAVEL : 9.0	
Rated speed rpm : 350 RATED SPEED guide sleeve travel mm : 1.94	
Tolerance mm : + 0.25 + control lever + position degree : 107.0	
Rated speed rpm : 1118 + tolerance degree : + 4.0 guide sleeve	
travel mm : 10.51 + rack travel mm : 13.50 Tolerance mm : + 0.25 + Rated speed rpm : 945 + Tolerance 1/min : + 5	
Rated speed rpm : 783 + Tolerance 1/min : +- 5 guide sleeve + rack travel mm : 4.00	
travel mm : 6.60 + Rated speed rpm : 1085 Tolerance mm : + 0.25 + Tolerance 1/min : + 15	
Rated speed rpm : 356	
travel mm : 1.95 + Rated speed rpm : 1300 Tolerance mm : + 0.25	
Rated speed rpm : 406 guide sleeve LOW IDLE	
travel mm : 2.67 Tolerance mm : + 0.25 + control lever	
Rated speed rpm : 490	
travel mm : 3.59 + Testing: Tolerance mm : + 0.25 +	
Rated speed rpm : 1320 + rack travel mm : 2.00 + Rated speed rpm : 460	

Tolerance 1/min : +-	30 +	Tolerance	
Dahad annud 70	<u>_</u> +	cm3/1000 strokes : +- 1.	.0
Rated speed rpm : 30	v	Check tolerance cm3/1000s. : +- 4.	0
CRT mm min. :> 8	3.50 I	Spreed : 7 4.	. U
	1	Tolerance	
		cm3/1000 strokes : 8.	0.
CONTINUOUS-ACTION CONTROL	- †	Check tolerance	^
Rated speed rpm : 38	rs I	cm3/1000s. : 12.	Ü
· · · · · · · · · · · · · · · · · · ·	·		
		BREAKAWAY	
TORQUE CONTROL	†		
Rated speed rpm : 90	n İ	Rack travel in mm : 13.5	'n
Rated speed rpm : 90 rack travel mm : 14	.55	Rated speed rpm : 945	
rack travel mm : 14 Tolerance mm : +- 0	.05		5
Dated around 50	<u>,</u> +		
Rated speed rpm : 50	U ₅₅ †		
rack travel mm : 14 Tolerance mm : + 0	105	STARTING FUEL DELIVERY	
	+		
ALEDOTO /AL TITLIDE	+	Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50	_
ANEROID/ALTITUDE COMPENSATOR TEST	†	rack travel mm : 20.50	Õ
CONFENSATOR (EST	Ī	rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity	U
	Ŧ	cm3/1000 strokes : 160.0	n
SETTING	+	Tolerance	_
Dated aread was	, t	$cm3/1000$ strokes : \leftarrow 10.0	0
rack travel mm · 14	55 1	Check tolerance cm3/1000s. : +- 14.0	_
Rated speed rpm : 550 rack travel mm : 14 Tolerance mm : + 0	.05 I	(4.6	J
	+		
MEASUREMENT	+		
Rated speed rpm : 550	n I	LOW IDLE	
•	+	LOW IDEE	
rack travel mm : 12	.55 +	Rated speed rpm : 400	
Tolerance mm : + 0	.10 †	rack travel mm : 5.80	
rack travel mm : 13.	.75	Tolerance mm : +- 0.20 Del. quantity	J
Tolerance mm : + 0.		cm3/1000 strokes : 24.5	5
	+	Tolerance	
TADT OUT_OUT	+	$cm3/1000$ strokes : \leftarrow 3.0)
START CUT-OUT	İ	Check tolerance $cm3/1000S$. : \leftarrow 6.0	3
Rated speed rpm : > 1	I_{00} I	Spreed : 4 6.0	j
Check	+	Tolerance	
	80 +	cm3/1000 strokes : 6.0	}
Rated speed rpm : < 3 Check	520 +	Check tolerance	,
	340 [‡]	cm3/1000s. : 10.0	j
	Ţ		
DIE DE THEN OURS	 +		
FUEL DELIVERY CHARACTERIST	102		
Rated speed rpm : 550	Ī		
Del. quantity	+		
cm3/1000 strokes : 220	1.5		
	7		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 25.11.93 : ISO 4113

Combination No. : 0400464113

Injection pump

Pump designation: PES4A750410/3RS1255

EP type number : 0410474966

Governor

Governer design. : RSV325...1150A8C494

: -4L

Governer no.

: 0420232572

Cust. part No. :

Customer-spec. information

Customer

Motor

: F4L912

Power KW

36.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve

: 1419992198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0681343009

Opening pressure

bar

Tolerance bar

Test lines

: 1680750014

Outside diameter :

6.0

x inside diameter : 2.0 600 x length mm :

REMARKS

Pull control lever in full-load direction until gauge fits over driver and web of housing cover. Measure fuel delivery.

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Prestroke mm 1.95 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

Firing order : 1-3-4-2

: 0-90-180-270 Phasing Tolerance : +- 0.50

Check

tolerance °NW : + 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 10.65 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 44.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance cm3/1000s.

: **←** 2.0

	+
Spreed	1
Tolerance	control lever
cm3/1000 strokes : 2.5 -	position degree : 104.0
	tolerance degree : + 4.0
Check tolerance	- The second of the second of
cm3/1000s. : 4.0	rack travel mm : 9.60
· · · · · · · · · · · · · · · · · · ·	
2nd speed rpm : 325 -	Rated speed rpm : 1195 Tolerance 1/min : +- 5
•	1
Rack travel in mm: 5.50	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1235
Del. quantity	Tolerance 1/min : + 15
cm3/1000 strokes : 11.0	
Tolerance -	rack travel mm : 0.85
cm3/1000 strokes : +- 3.0	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1350
cm3/1000s. : +- 4.5	-
Spreed -	
Tolerance	- LOW IDLE
cm3/1000 strokes : 2.0	
Check tolerance	-
cm3/1000s. : 3.0	- control lever
+	- position degree : 72.0
	- tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	 Setting point w/out bumper spring
+	-
+	- Rated speed rpm : 325
CUITAGE OF ETAIL PORTERS	- rack travel mm : 5.00
GUIDE SLEEVE POSITION	<u> </u>
†	- Testing:
control lever	•
	- Rated speed rpm : 325_
position degree : -3	- rack travel mm : 5.50
Rated speed rpm : 800	Tolerance mm : + 0.10
Rack travel in mm: 0.50	mode through any 2 00
Tolerance mm : +- 0.20	rack travel mm : 2.00
Total a lice min . T U.20	Rated speed rpm : 415
	Tolerance 1/min : + 30
FULL LOAD DELIVERY AT FULL LOAD STOP	
	TORQUE CONTROL
Rated speed rpm : 1150	· · · · · · · · · · · · · · · · · · ·
Aneroid pressure	Rated speed rpm : 500
hPa : -	rack travel mm : 11.60
Del. quantity	Tolerance mm : + 0.10
cm3/1000 strokes : 44.0 +	
Tolerance +	Rated speed rpm : 850
cm3/1000 strokes : \leftarrow 0.5	rack travel mm : 11.35
Check tolerance	Tolerance mm : +- 0.15
cm3/1000s. : \leftarrow 2.0 $+$	
Spreed	
Tolerance	
cm3/1000 strokes : 2.5	
Check tolerance	
cm3/1000s. : 4.0 +	BREAKAWAY
†	
DATED COPED	.
RATED SPEED +	Rack travel in mm : 9.60

Rated speed rpm : 1195
Tolerance 1/min : +- 5

STARTING FUEL DELIVERY

Rated speed rpm 100 20.25 rack travel mm Tolerance mm : + 0.75

Del. quantity cm3/1000 strokes : 105.0

Tolerance cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. 8.0

LOW IDLE

325 5.50 Rated speed rpm rack travel mm Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 3.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 06.12.93 : ISO 4113

Combination No. : 0402736846

Injection pump

Pump designation : PES6P120A120RS7298

EP type number : 0412726899

Governor

Governer design. : RQV400...1250PA1081K

Governer no. : 0421815360

Cust. part No. : 3924903

Customer-spec. information Customer : CDC

Motor

: 6BTA-A

Power KW

: 156.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

: 40 : + 2.0 Tolerance °C

Overflow valve : 2417413086

Inlet press. bar : 1.5

Overflow quantity

: 100 min. L/h Tolerance L/h : **←** 10.0

Test nozzle holde

: 1688901103 assembly

Opening pressure

208.5 bar Tolerance bar

Test lines : 1680750015 Outside diameter : 6.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Prestroke mm : 3.60 Tolerance mm : ← 0.05

test only : ← 0.10

Rack travel in mm : 11.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 Tolerance : ← 0.50

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

S.o.d. blocking

Barrel no. 1 Tolerance : + 0.50

Check

tolerance "NW : + 0.75

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm : 13.85

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 173.5	control lever position degree : 72.0
Tolerance cm3/1000 strokes : +- 1.0	tolerance degree : +- 6.0
Check tolerance	. † Testing:
cm3/1000s. : + 4.0 Spreed	Rated speed rpm : 400 rack travel mm : 6.20 Tolerance mm : + 0.20
Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 300
Check tolerance cm3/1000s. : 12.0	CRT mm min. :> 8.90
· 12.0	CONTINUOUS ACTION CONTROL
(B) SETTING OF INJECTION PUMP	CONTINUOUS-ACTION CONTROL
WITH GOVERNOR	+ Rated speed rpm : 420
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
	Rated speed rpm : 1250
Rated speed rpm : 1250 Del. quantity	rack travel mm : 13.85 Tolerance mm : + 0.05
cm3/1000 strokes : 173.5 Tolerance	+
cm3/1000 strokes : $+$ 1.0	+ Rated speed rpm : 800 + rack travel mm : 12.20
Check tolerance cm3/1000s. : + 4.0	† Tolerance mm : + 0.10
spreed	Rated speed rpm : 500 rack travel mm : 11.35
Tolerance cm3/1000 strokes : 8.0	rack travel mm : 11.35 Tolerance mm : + 0.20
Check tolerance	1000.00.00.00
cm3/1000s. : 12.0	ANEROID/ALTITUDE
RATED SPEED	COMPENSATOR TEST
	+ SETTING
control lever position degree : 118.0	Rated speed rpm : 1250
tolerance degree : +- 6.0	+ rack travel mm : 13.85 + Tolerance mm : + 0.05
rack travel mm : 12.80	+
Rated speed rpm : 1330 Tolerance 1/min : +- 15	# MEASUREMENT
·-	Rated speed rpm : 1250
rack travel mm : 4.00 Rated speed rpm : 1485	+ rack travel mm : 9.70 + Tolerance mm : + 0.20
Tolerance 1/min : + 5	+
rack travel mm : 0.50	+ Rated speed rpm : 1250
Tolerance mm : +- 0.50 Rated speed rpm : 1550	rack travel mm : 12.80 Tolerance mm : + 0.20
LOW IDLE	rack travel mm : 10.85 Tolerance mm : + 0.05

START CUT-OUT

Rated speed rpm : > 100 Check speed 1/min : > 80 Rated speed rom : < 290 Check speed 1/min 300 : <

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 800 Del. quantity

cm3/1000 strokes : 141.5

Tolerance

cm3/1000 strokes 3.0

Check tolerance cm3/1000s.

: +-6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Rated speed rpm 1250

Del. quantity cm3/1000 strokes : 91.0

Tolerance

cm3/1000 strokes 2.0

Check tolerance

cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm : 12.80 Rated speed rpm : 1330 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 12.50 : **←** 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 155.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s.: + 25.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 21.01.94 : ISO 4113

Combination No. : 0402646938

Injection pump

Pump designation : PE6P12DA72DRS71880

EP type number : 0412626846

Governor

Governer design. : RQ200/950PA745-3

Governer no.

: 0421801579

Cust. part No. : 1334027

Customer-spec. information Customer : SCANIA

Motor

: DSC 11 21

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar

Test nozzle holde

assembly

: 1688901104

Opening pressure

Tolerance bar

251.5 : + 1.5

Test Lines

: 1680750008

Outside diameter :

6.0

x inside diameter:

2.0

L15

x length mm : 600

REMARKS

Check and set without ROBO diaphragam

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm

test only : ÷ 0.10

Rack travel in mm: 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.75 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes :

220.0

Tolerance cm3/1000 strokes : +- 1.0	‡
Check tolerance cm3/1000s. : +- 4.0	control lever position degree : 44.0 tolerance degree : 44.0
Spreed Tolerance cm3/1000 strokes : 8.0	control lever position degree : 99.0 tolerance degree : + 4.0
Check tolerance cm3/1000s. : 12.0	rack travel mm : 11.70 Rated speed rpm : 995 Tolerance 1/min : +- 5
2nd speed rpm : 250	+
Rack travel in mm : 4.70 Tolerance mm : + 0.30 Del. quantity	rack travel mm : 4.00 Rated speed rpm : 1125 Tolerance 1/min : + 15
cm3/1000 strokes : 16.0 Tolerance	rack travel mm : 0.50
cm3/1000 strokes : +- 3.0 Check tolerance	+ Tolerance mm : + 0.50 + Rated speed rpm : 1250
cm3/1000s. : +- 6.0 Spreed	100 100
Tolerance	+ LOW IDLE
cm3/1000 strokes : 4.0 Check tolerance	+ control lever
cm3/1000s. : 8.0	position degree : 62.0 tolerance degree : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 11.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 600	Rated speed rpm : 250 rack travel mm : 4.70 Tolerance mm : + 0.10
Rack travel in mm : 16.50 Tolerance mm : + 1.30	rack travel mm : 2.00
	Rated speed rpm : 350 Tolerance 1/min : +- 20
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 150
Rated speed rpm : 700	+
Del. quantity cm3/1000 strokes : 220.0 Tolerance	+ CRT mm min. : > 6.00
cm3/1000 strokes : +- 1.0 Check tolerance	TORQUE CONTROL
cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 950 rack travel mm : 12.75
Tolerance	+ Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : 8.0 Check tolerance	Tolerance mm : + 0.05
cm3/1000 strokes : 8.0	Tolerance mm : + 0.05 ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 12.75 rack travel mm Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpin 500 rack travel mm 10.40 Tolerance mm : **←** 0.20

Rated speed rpm 500

rack travel mm 11.00 Tolerance mm : +- 0.15

rack travel mm 12.05 Tolerance mm : +- 0.05

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm 950 Del. quantity cm3/1000 strokes :

209.0 Tolerance

cm3/1000 strokes : +-4.0

Check tolerance

cm3/1000s. 6.0

Rated speed rpm 500

Del. quantity

cm3/1000 strokes : 153.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000S. 4.0

BREAKAWAY

Rack travel in mm: 11.70 Rated speed rpm : Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 10.40 Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 165.0 Tolerance cm3/1000 strokes : \leftarrow 20.0

Check tolerance : **←** 24.0 cm3/1000s.

LOW IDLE

Rated speed rpm	:		250
rack travel mm	:		4.70
Tolerance mm	:	+-	0.30
Del. quantity			44.0
cm3/1000 strokes Tolerance	:		16.0
cm3/1000 strokes			3.0
Check tolerance	•	-	3.0
cm3/1000s.	•	+-	6.0
Spreed	•	•	0.0
Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000S.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.03.94 : ISO 4113

Combination No. : 0402646970

Injection pump

Pump designation: PE6P120A320RS7248

: -10Y

EP type number : 0412626902

Governor

Governer design. : RQV275...1150PA986

Governer no.

: 0421813920

Cust. part No. : 1248046/4

Customer-spec. information : DAF

Customer Motor

: RS 180 L

Power Kw

: 180.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

40

Tolerance °C

2.0

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar : + 0.1

Overflow quantity

min. L/h

: 130

Tolerance L/h

: + 10.0

Test nozzle holde assembly

: 1688901105

Opening pressure bar

208.5

Tolerance bar

Test lines : 1680750089

Outside diameter :

8.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only

: + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 0.50

Firing order

: 1-5-3-6-2-

Phasing

: 0-60-120-180-240

: -300

Tolerance Check

: + 0.30

tolerance °NW

: + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

1

BASIC SETTING

Rated speed rpm :

1000

Rack travel in mm : 10.75

Tolerance mm

: **←** 0.05

Del. quantity cm3/1000 strokes	: 147.5	travel mm : 2.52 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 450
Check tolerance cm3/1000s.	: + 4.0	funde steeve travel mm : 3.07 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	Rated speed rpm : 1500 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 9.0	
2nd speed rpm	: 275	GUIDE SLEEVE POSITION
Rack travel in mm		Rated speed rpm : 1340
Tolerance mm Del. quantity cm3/1000 strokes		Rack travel in mm: 9.70 Tolerance mm: + 1.30
Tolerance cm3/1000 strokes Check tolerance	: ← 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	: ← 6.0	Rated speed rpm : 1150 Del. quantity
Tolerance cm3/1000 strokes	: 8.0	+ cm3/1000 strokes : 147.5 + Tolerance
Check tolerance cm3/1000s.	: 12.0	+ cm3/1000 strokes : + 1.0 + Check tolerance
(B) SETTING OF INWITH GOVERNOR		cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance
GUIDE SLEEVE TRAVI	EL	+ cm3/1000s. : 9.0
Rated speed rpm guide sleeve		RATED SPEED
travel mm Tolerance mm	: + 0.15	control lever + position degree : 120.0
Rated speed rpm guide sleeve travel mm		tolerance degree : +- 4.0
Tolerance mm	: 8.25 : + 0.20	rack travel mm : 9.70 Rated speed rpm : 1182 Tolerance 1/min : + 5
Rated speed rpm guide sleeve	: 799	rack travel mm : 4.00
travel mm Tolerance mm	: 4.21 : + 0.25	Rated speed rpm : 1280 Tolerance 1/min : +- 15
	: 315	rack travel mm : 0.70 Tolerance mm : + 0.70
guide sleeve travel mm Tolerance mm	: 1.98 : ← 0.25	Rated speed rpm : 1450
Rated speed rpm	: 365	LOW IDLE

control lever position degree tolerance degree	: 83.0 : +- 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 275 : 4.70 : + 0.10
Rated speed rpm	: 175
CRT mm min.	: > 7.40
CONTINUOUS-ACTION	CONTROL
Rated speed rpm	: 340
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 10.75 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	: 1150 : 10.70 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 10.75 : +- 0.05
MEASUREMENT	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 10.35 : ← 0.05
Rated speed rpm	: 600
rack travel mm Tolerance mm	: 9.50 : + 0.10
rack travel mm Tolerance mm	: 9.90 : +- 0.10
FUEL DELIVERY CHAR	ACTERISTICS

Rated speed rpm Del. quantity	:	600
cm3/1000 strokes Tolerance	:	121.0
cm3/1000 strokes Check tolerance	: +	- 1.0
cm3/1000s.	: +-	- 4.0

BREAKAWAY

Rack travel in mm	:	9.70
Rated speed rpm	:	1182
Tolerance 1/min	:	+- 5

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm	: : : +-	275 5.40 0.10
Del. quantity cm3/1000 strokes Tolerance	:	16.0
cm3/1000 strokes Check tolerance	: +-	3.0
cm3/1000S. Spreed	: +-	6.0
Tolerance cm3/1000 strokes	:	8.0
Check tolerance cm3/1000S.	:	12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.03.94 : ISO 4113

Combination No. : 0402646991

Injection pump

Pump designation: PE6P120A320RS7218

: -10Y

EP type number

: 0412626893

Governor

Governer design. : RQV275...1000PA939

: -2

Governer no.

: 0421813986

Cust. part No. : 1247408

Customer-spec. information

Customer : DAF

Motor

: WS 222 L

Power KW

: 222.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1417413025

Inlet press. bar :

Tolerance bar $: \leftarrow 0.1$

Test nozzle holde

assembly

: 1688901105

Opening pressure

Tolerance bar

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm

Tolerance mm

test only : +- 0.10

Rack travel in mm : 13.50 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

1

: + - 0.30

BASIC SETTING

Rated speed rpm :

850

Rack travel in mm:

13.85

Tolerance mm

: +- 0.05

Del. quantity

cm3/1000 strokes :

199.0

Tolerance cm3/1000 strokes	; : + 1.0	Rated speed rpm : 380 guide sleeve
Check tolerance cm3/1000s.	: +- 4.0	travel mm : 2.65 Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 9.0	+ Rated speed rpm : 1150 + Rack travel in mm : 12.70
2nd speed inpm		Tolerance mm : + 1.30
Rack travel in m Tolerance mm		FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes Tolerance	: 17.0	Del. quantity cm3/1000 strokes : 199.0 Tolerance
cm3/1000 strokes Check tolerance cm3/1000s.		+ cm3/1000 strokes : + 1.0 + Check tolerance
Spreed Tolerance		+ cm3/1000S. : + 4.0 + Spreed + Tolerance
cm3/1000 strokes Check tolerance cm3/1000s.		cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. : 9.0
(B) SETTING OF I		
WITH GOVERNOR	APECITON POMP	RATED SPEED
GUIDE SLEEVE TRAV	/EL	control lever position degree : 119.0 tolerance degree : +- 4.0
Rated speed rpm guide sleeve	: 275	position degree : 119.0 tolerance degree : +- 4.0 rack travel mm : 12.80
Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.35 : + 0.10	position degree : 119.0 tolerance degree : +- 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	: 275 : 1.35 : ← 0.10 : 1058	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.35 : + 0.10 : 1058 : 8.05 : + 0.10	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm	: 275 : 1.35 : ← 0.10 : 1058 : 8.05 : ← 0.10 : 676 : 4.50	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	: 275 : 1.35 : ← 0.10 : 1058 : 8.05 : ← 0.10 : 676 : 4.50 : ← 0.25	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : + 0.70
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.35 : ← 0.10 : 1058 : 8.05 : ← 0.10 : 676 : ← 4.50 : ← 0.25 : 301 : 1.75	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : + 0.70 Rated speed rpm : 1250 LOW IDLE control lever
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 275 : 1.35 : + 0.10 : 1058 : 8.05 : + 0.10 : 676 : 4.50 : + 0.25 : 301 : 1.75 : + 0.25	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : + 0.70 Rated speed rpm : 1250 LOW IDLE control lever position degree : 82.0 tolerance degree : + 4.0
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	: 275 : 1.35 : ← 0.10 : 1058 : 8.05 : ← 0.10 : 676 : ← 4.50 : ← 0.25 : 301 : 1.75 : ← 0.25 : 351 : 2.55	position degree : 119.0 tolerance degree : + 4.0 rack travel mm : 12.80 Rated speed rpm : 1045 Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1160 Tolerance 1/min : + 15 rack travel mm : 0.70 Tolerance mm : + 0.70 Rated speed rpm : 1250 LOW IDLE control lever position degree : 82.0

rack travel mm 5.00 : ← 0.10 Tolerance mm

Rated speed rpm 175

: > CRT mm min. 6.50

CONTINUOUS-ACTION CONTROL

Rated speed rpm 325

TORQUE CONTROL

Rated speed rpm 850 rack travel mm 13.85 Tolerance mm : + 0.05

Rated speed rom 1000 : 13.80 : + 0.10 rack travel mm Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600 rack travel mm 13.85 : + 0.05 Tolerance mm

MEASUREMENT

600 Rated speed rpm rack travel mm 13.25 : + 0.05 Tolerance mm

Rated speed rpm 600

11.60 rack travel mm : **←** 0.10 Tolerance mm

rack travel mm 12.10 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : +-

Check tolerance

cm3/1000s. : +-4.0 BREAKAWAY

12.80 Rack travel in mm: Rated speed rpm : 1045 Tolerance 1/min : +-

LOW IDLE

Rated speed rpm 275 6.40 rack travel mm Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 : +-

Spreed Tolerance

cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.

12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 09.03.94 Test oil : ISO 4113

Combination No. : 0402736849

Injection pump

Pump designation : PES6P120A720/3LS7251

EP type number : 0412726860

Governor

Governer design. : RQV300...1000PA962

: -12K

Governer no. : 0421815407

Cust. part No. : 3-7373

Customer-spec. information

Customer : MAN

Motor : D2866LF09 Power KW : 398.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1688901105 assembly

Opening pressure

208.5 Tolerance bar : **←** 1.5

Lube oil : 1409918004

Test lines : 1680750089

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 4.85 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm: 15.50 Tolerance mm : \leftarrow 0.50

: 6-2-4-1-5-: 3 Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm	: 900	- Rated speed rpm : 324 - guide sleeve
Rack travel in m Tolerance mm		- travel mm : 1.86 - Tolerance mm : +- 0.25
Del. quantity cm3/1000 strokes	: 294.0	- Rated speed rpm : 374 - guide sleeve - travel mm : 2.56 - Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes	: +- 1.0	Rated speed rpm : 480
Check tolerance cm3/1000s.	: + 4.0	guide sleeve travel mm: 3.65 Tolerance mm: +- 0.25
Spreed Tolerance cm3/1000 strokes	: 10.0	Rated speed rpm : 1260 guide sleeve travel mm : 13.50 Tolerance mm : +- 0.50
Check tolerance cm3/1000s.	: 14.0	
2nd speed rpm	: 300	GUIDE SLEEVE POSITION
Rack travel in mo Tolerance mm Del. quantity		Rated speed rpm : 1120 Rack travel in mm : 12.50 Tolerance mm : +- 2.00
cm3/1000 strokes Tolerance	+	
cm3/1000 strokes Check tolerance	+	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed Tolerance	: ← 6.0	Rated speed rpm : 900 Del. quantity
cm3/1000 strokes Check tolerance	: 8.0	cm3/1000 strokes : 294.0 Tolerance cm3/1000 strokes : +- 1.0
cm3/1000s.	: 12.0	Check tolerance cm3/1000S. : +- 4.0
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance
GUIDE SLEEVE TRAV	/EL	cm3/1000s. : 14.0
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm Tolerance mm	: 1.54 : + 0.25	control lever position degree : 300.0
Rated speed rpm guide sleeve	+	tolerance degree : +- 4.0
travel mm Tolerance mm	: 10.39 : + 0.25	rack travel mm : 12.40 Rated speed rpm : 1045 Talonance 1/min : 4
Rated speed rpm guide sleeve	: 769	Tolerance 1/min : + 5 rack travel mm : 4.00
travel mm Tolerance mm	: 6.95 : + 0.25	Rated speed rpm : 1140 Tolerance 1/min : +- 15
	t	

rack travel mm : 0.50 Tolerance mm : + 0.50	† rack travel mm : 9.10
Tolerance mm : +- 0.50 Rated speed rpm : 1250	† Tolerance mm : +- 0.10
	Rated speed rpm : 900
LOW IDLE	rack travel mm : 11.90 Tolerance mm : + 0.20
control lever position degree : 252.0 tolerance degree : +- 4.0	rack travel mm : 9.45 Tolerance mm : + 0.05
Testing:	START CUT-OUT
Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : + 0.10	Rated speed rpm : > 100 Check speed 1/min : > 80
Rated speed rpm : 200	+ speed 1/min :> 80 + Rated speed rpm : < 240 + Check
CRT mm min. : > 6.70	+ speed 1/min : < 260
	FUEL DELIVERY CHARACTERISTICS
CONTINUOUS-ACTION CONTROL	+ Rated speed rpm : 1000
Rated speed rpm : 330	+ Del. quantity + cm3/1000 strokes : 269.0
TORQUE CONTROL	+ Tolerance + cm3/1000 strokes : +- 3.0
Rated speed rpm : 900 rack travel mm : 13.95 Tolerance mm : + 0.05	+ Check tolerance + cm3/1000s. : + 6.0
Tolerance mm : ← 0.05	Rated speed rpm : 750
Rated speed rpm : 1000 rack travel mm : 13.50 Tolerance mm : + 0.10	- Del. quantity - cm3/1000 strokes : 287.0 - Tolerance
Tolerance mm : + 0.10	cm3/1000 strokes : +- 3.0 Check tolerance
Rated speed rpm : 750 rack travel mm : 13.40	cm3/1000s. : +- 6.0
Tolerance mm : +- 0.10	Rated speed rpm : 750 Del. quantity
Rated speed rpm : 750 rack travel mm : 6.50 Tolerance mm : + 0.10	+ cm3/1000 strokes : 107.0 + Tolerance
Tolerance mm : ← 0.10	+ cm3/1000 strokes : + 5.0 + Check tolerance
ANEROID/ALTITUDE	+ cm3/1000s. : + 8.0 + Spreed
COMPENSATOR TEST	+ Tolerance + cm3/1000 strokes : 10.0
SETTING	+ Check tolerance + cm3/1000s. : 14.0
Rated speed rpm : 900	Rated speed rpm : 500
rack travel mm : 13.95 Tolerance mm : + 0.05	+ Del. quantity + cm3/1000 strokes : 169.0
MEASUREMENT	+ Tolerance + cm3/1000 strokes : + 1.0
Rated speed rpm : 900	+ Check tolerance + cm3/1000S. : + 4.0

L26

BREAKAWAY

Rack travel in mm: 12.40 Rated speed rpm : 1045
Tolerance 1/min : +-

STARTING FUEL DELIVERY

Del. quantity cm3/1000 strokes : 210.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm 300 5.20 rack travel mm : +- 0.20 Tolerance mm Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.03.94 : ISO 4113

Combination No. : 0402648970

Injection pump

Pump designation : PE8P120A320LS7863

EP type number : 0412628874

Governor

Governer design. : RQV300...950PA1108K

Governer no. : 0421815369

Cust. part No. : 0240748402

Customer-spec. information Customer : MB-NFZ Motor : 0M442 LA Power KW : 370.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : +-

Tolerance l/h: \leftarrow 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

Tolerance bar : ← 1.5

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 5.05 : **←** 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm: 14.50 Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 950

5	t t	- guide sleeve	
Rack travel in mm :		· travel mm : 1.80	
Tolerance mm : -	 0.05 	Tolerance mm : +- 0.25	
		•	
Del. quantity	+	Rated speed rpm : 368	
cm3/1000 strokes :	282.0	guide sleeve	
	4	travel mm : 2.50	
Tolerance		Tolerance mm : +- 0.25	
cm3/1000 strokes : 4	⊢ 1.0 ↓	. Total and the min . Total	
tile, 1000 strokes .	1.0	Rated speed rpm : 460	
Check tolerance			
	⊢ 4.0 I	guide sleeve	
CIID/ 10003	T 4.0	travel mm : 3.34	
Spreed		Tolerance mm : + 0.25	
	†		
Tolerance	, <u> </u>	Rated speed rpm : 1220	
cm3/1000 strokes :	6.0	guide sleeve	
		travel mm : 13.50	
Check tolerance	+	Tolerance mm : $+$ 0.50	
cm3/1000s. :	9.0		
	+		
2nd speed rpm :	300 🗼	GUIDE SLEEVE POSITION	
•	1	0202 022272 1 00212011	
Rack travel in mm :	5.70	Rated speed rpm : 1070	
Tolerance mm : +		nated opeca (piii . 1010	
Del. quantity	1	Rack travel in mm : 13.80	
cm3/1000 strokes :	19.0	Tolerance mm : + 1.30	
Tolerance	7.0 T	roterance iiiii : 7- 1.50	
cm3/1000 strokes : +	- 3.0 I		
Check tolerance	- J.U †		
	, a †	FULL LOAD DELIVERY AT FULL LOAD STOP)
cm3/1000s. : +	- 6.0 +		
Spreed	+	Rated speed rpm : 950	
Tolerance	+	Del. quantity	
cm3/1000 strokes :	6.0	cm3/1000 strokes : 282.0	
Check tolerance	+	Tolerance	
cm3/1000s. :	10.0	cm3/1000 strokes : +- 1.0	
	+	Check tolerance	
	1	cm3/1000s. : +- 4.0	
(B) SETTING OF INJECT	ION PUMP 1	Spreed	
WITH GOVERNOR	1	Tolerance	
	<u> </u>	cm3/1000 strokes : 6.0	
		Check tolerance	
GUIDE SLEEVE TRAVEL	T		
GOIDE SEELVE TRAVEL	Ť	cm3/1000s. : 9.0	
Rated speed rpm :	300 I		
guide sleeve	300 T	DATED OPERA	
travel mm :	152	RATED SPEED	
	1.52		
Tolerance mm : +	- 0.15		
5	+	control lever	
Rated speed rpm :	1008	position degree : 121.0	
guide sleeve	 	tolerance degree : +- 4.0	
travel mm :	9.83	_	
Tolerance mm : +	- 0.20	rack travel mm : 13.80	
	1	Rated speed rpm : 995	
Rated speed rpm :	730	Tolerance 1/min : + 5	
guide sleeve	<u>I</u>	TO COT MITOC TABLET	
travel mm :	6.21	rack travel mm : 4.00	
	- 0.25 I		
tor ocross nen	T		
Pated speed mm .	318	Tolerance 1/min : + 15	
Rated speed rpm :	210	mark to 200 to 200	
	+	rack travel mm : 0.75	

Tolerance mm : +- 0.75 Rated speed rpm : 1250	<u> </u>
, .	+ ANEROID/ALTITUDE
LOW IDLE	+ COMPENSATOR TEST
	+ SETTING
control lever	+
position degree : 74.0	Rated speed rpm : 850
tolerance degree : +- 4.0	Rated speed rpm : 850 rack travel mm : 15.00 Tolerance mm : +- 0.10
Testing:	Toterance mm : + 0.10
Pated shoot row : 700	+ MEASUREMENT
rack travel mm : 5.20	Pated speed row 850
Rated speed rpm : 300 rack travel mm : 5.20 Tolerance mm : +- 0.10	+ rack travel mm : 7.95
Rated speed rpm : 200	Rated speed rpm : 850 rack travel mm : 7.95 Tolerance mm : + 0.15
	Rated speed rpm : 850
CRT mm min. : > 7.30	+
	+ rack travel mm : 12.10 + Tolerance mm : + 0.10
CONTINUOUS-ACTION CONTROL	Total arice min . The U. (U
D	rack travel mm : 8.80 Tolerance mm : + 0.20
Rated speed rpm : 300	+ Tolerance mm : + 0.20
TORQUE CONTROL	CTADT OUT OUT
TORGOE CONTROL	START CUT-OUT
Rated speed rpm : 950	+ Rated speed rpm :> 100
rack travel mm : 14.80 Tolerance mm : +- 0.05	+ Check
	speed 1/min :> 80 Rated speed rpm : < 220
Rated speed rpm : 850 rack travel mm : 15.00 Tolerance mm : + 0.10	+ Check
rack travel mm : 15.00	+ speed 1/min : < 240
roterance mm : +- U.1U	<u></u>
Rated speed rpm : 750 rack travel mm : 14.50 Tolerance mm : + 0.10	+ FUEL DELIVERY CHARACTERISTICS
rack travel mm : 14.50	+
roceratice min : += 0.10	Rated speed rpm : 750 Del. quantity
Rated speed rpm : 700	+ cm3/1000 strokes : 277.0
rack travel mm : 14.20 Tolerance mm : + 0.10	+ Tolerance
Toterance mm : + U.7U	+ cm3/1000 strokes : +- 2.0
Rated speed rpm : 650	+ Check tolerance + cm3/1000S. : +- 5.0
rack travel mm : 14.00 Tolerance mm : + 0.10	+ Spreed
Tolerance mm : + 0.10	+ Tolerance
Rated speed rpm : 550	+ cm3/1000 strokes : 8.0 + Check tolerance
rack travel mm : 13.95	+ cm3/1000s. : 12.0
rack travel mm : 13.95 Tolerance mm : + 0.10	+
Rated speed rpm : 400	Rated speed rpm : 550
Rated speed rpm : 400 rack travel mm : 12.10	+ Del. quantity + cm3/1000 strokes : 268.0
Tolerance mm : + 0.10	+ Tolerance
	+ cm3/1000 strokes : +- 3.0
	+ Check tolerance + cm3/1000s. : + 6.0
	Spreed
	•

Tolerance			+	Check tolerance		
cm3/1000 strokes	:: 8.0		1	cm3/1000s.	• +-	6.0
Check tolerance			Ĺ	Spreed	• •	0.0
cm3/1000s.	: 12.0		T	Tolerance		
u.s., 10000.	. 12.0		T	10(e) dille	_	10
Pated speed non	. /00		T	cm3/1000 strokes	:	6.0
Rated speed rpm	: 400		+	Check tolerance		40.0
Del. quantity	40/ 0		+	cm3/1000s.	:	10.0
cm3/1000 strokes	: 194.0		†			
Tolerance			+			
cm3/1000 strokes	: : ← 1.5		+			
Check tolerance			+			
cm3/1000S.	: ← 4.5		+			
			1			
Rated speed rpm	: 500		1			
Del. quartity			1			
cm3/1000 strokes	: 133.0		Ţ			
Tolerance			T			
cm3/1000 strokes	: ← 1.0		Τ			
Check tolerance			T			
cm3/1000s.	: ← 4.0		T			
	: ← 4.0		†			
Spreed			†			
Tolerance			+			
cm3/1000 strokes	: 8.0		+			
Check tolerance			+			
cm3/1000s.	: 12.0		+			
			+			
			+			
BREAKAWAY			1			
			1			
			1			
Rack travel in m	n · 13.80		1			
Rated speed rpm			T			
Tolerance 1/min			T			
roterance immin			Ť			
			†			
			†			
CTARTING THE DE	T. 1575. 4		+			
STARTING FUEL DEL	LIVERY		+			
			+			
Rated speed rpm	: 100		+			
rack travel mm	: 11.80		+			
Tolerance mm	: +- 0.40		+			
Del. quantity			1			
cm3/1000 strokes	: 130.0		1			
Tolerance			1			
cm3/1000 strokes	: + 10.0		\mathbf{I}			
Check tolerance	. 10.0		T			
cm3/1000s.	: +- 14.0		T			
CIID7 10003.	. +- 14.0		T			
			†			
			†			
			+			
			+			
LOW IDLE			+			
			+			
Rated speed rpm	: 300		+			
rack travel mm	: 5.70		+			
Tolerance mm	: +- 0.30		1			
Del. quantity	. 5.50		1			
cm3/1000 strokes	: 19.0		T			
Tolerance	. 17.0		T			
	70		†			
cm3/1000 strokes	: ← 3.0		+			

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.03.94 Edition Test oil : ISO 4113

Combination No. : 0401846935

Injection pump

Pump designation : PE6P12OA32ORS3262

EP type number : 0411826797

Governor

Governer design. : RQV300...1050PA232

: -4

Governer no. : 0421813883

Cust. part No. : 11031101-P03 V.3/94

Customer-spec. information

Customer : VME

: TD102 GC Motor Power KW : 180.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1457413010

Inlet press. bar : 1.5 Tolerance bar : \leftarrow 0.1

Test nozzle holde

assembly : 1688901019

Opening pressure

bar 208.5 Tolerance bar

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm 3.65 : + 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + - 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 1

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 9.45

Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 175.0

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Tolerance cm3/1000 strokes : + 1.0	Tolerance 1/min : +- 15
Check tolerance cm3/1000s. : + 4.0	rack travel mm : 0.50 Tolerance mm : +- 0.50
Spreed	Rated speed rpm : 1300
Tolerance cm3/1000 strokes : 5.0	LOW IDLE
Check tolerance cm3/1000s. : 9.0	control lever position degree : 84.0 tolerance degree : +- 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 24.0 tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	Testing:
Rated speed rpm : 1150	Rated speed rpm : 300 rack travel mm : 5.40 Tolerance mm : +- 0.20
Rack travel in mm: 16.50 Tolerance mm: : + 1.30	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 6.90
Rated speed rpm : 700 The Del. quantity	CONTINUOUS-ACTION CONTROL
cm3/1000 strokes : 175.0 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 355
Check tolerance	
cm3/1000s. : + 4.0 + 5preed	ANEROID/ALTITUDE COMPENSATOR TEST
Tolerance cm3/1000 strokes : 5.0 Check tolerance	SETTING
cm3/1000s. : 9.0	
RATED SPEED	Rated speed rpm : 500 Pressure hPa : 900 rack travel mm : 9.45 Tolerance mm : +- 0.05
control lever position degree : 54.0	MEASUREMENT
tolerance degree : +- 4.0	Pressure hPa : - Rated speed rpm : 500
control lever position degree : 112.0 tolerance degree : + 4.0	rack travel mm : 9.20 Tolerance mm : + 0.10
rack travel mm : 8.45	Rated speed rpm : 500
Rated speed rpm : 1095 Tolerance 1/min : +- 5	Pressure hPa : 170 rack travel mm : 0.20 Talanana m
rack travel mm : 4.00 Fated speed rpm : 1165	Tolerance mm : ← 0.05

FUEL DELIVERY CHARACTERISTICS

Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 172.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance cm3/1000s. 4.0

BREAKAWAY

Rack travel in mm : 8.45 Rated speed rpm : 1095
Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 20.50 rack travel mm Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 175.0 Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s. : + 19.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 18.03.94 : ISO 4113

Combination No. : 0402646795

Injection pump

Pump designation : PE6P120A320LS7858-1

EP type number : 0412626911

Governor

Governer design. : RQV300...1050PA1033

: -8

Governer no.

: 0421814027

Cust. part No. : 0230749002

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 180.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 110 min. l/h 🐪 Tolerance 1/h : **←** 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar 208.5 Tolerance bar

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.6

: 5.55 : ← 0.05 Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

: 6-3-5-2-4-Firing order

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : +- 0.30

Check

tolerance $^{\circ}NW$: +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 1050

Rack travel in m Tolerance mm	nm : 11.15 : +- 0.05	guide sleeve travel mm : 4.52 Tolerance mm : +- 0.25
Del. quantity cm3/1000 strokes	: 171.0	Rated speed rpm : 625 guide sleeve
Tolerance cm3/1000 strokes	; : + 1.0	travel mm : 4.97 Tolerance mm : + 0.25
Check tolerance cm3/1000S.	: +- 4.0	+ Rated speed rpm : 840 + guide sleeve + travel mm : 6.19 + Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes	: 5.0	+ Rated speed rpm : 1190 + guide sleeve
Check tolerance cm3/1000s.	: 9.0	travel mm : 10.00 Tolerance mm : +- 0.25
2nd speed rpm	: 300	Rated speed rpm : 1290 guide sleeve travel mm : 11.50
Rack travel in m Tolerance mm Del. quantity	m: 5.20 :+- 0.30	Tolerance mm : + 0.50
cm3/1000 strokes Tolerance		GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance	: + 3.0	Rated speed rpm : 1170
cm3/1000s. Spreed Tolerance	: +- 6.0	Rack travel in mm : 10.10 Tolerance mm : + 1.30
cm3/1000 strokes Check tolerance	: 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 10.0	Rated speed rpm : 1050
(B) SETTING OF IN	WECTION PUMP	+ Del. quantity + cm3/1000 strokes : 171.0
WITH GOVERNOR		+ Tolerance - cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAV	/EL	- Check tolerance - cm3/1000s. : +- 4.0
Rated speed rpm guide sleeve	: 300	+ Spreed + Tolerance + cm3/1000 strokes : 5.0
travel mm Tolerance mm	: 0.72 : +- 0.20	Check tolerance cm3/1000s. : 9.0
Rated speed rpm guide sleeve		RATED SPEED
travel mm Tolerance mm	: 8.42 : +- 0.15	‡
Rated speed rpm guide sleeve	: 1640	<pre>control lever position degree : 121.0 tolerance degree : + 4.0</pre>
travel mm Tolerance mm	: 24.93 : +- 0.25	rack travel mm : 10.15
Rated speed rpm	: 575	Rated speed rpm : 1095 Tolerance 1/min : +- 5
		1

rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm LOW IDLE	: 1160 : +- 15 : 0.75	rack travel mm : 10.30 Tolerance mm : + 0.15 Rated speed rpm : 400 rack travel mm : 10.90 Tolerance mm : + 0.10 rack travel mm : 10.55 Tolerance mm : + 0.05
control lever position degree tolerance degree Testing: Rated speed rpm rack travel mm Tolerance mm	: +- 4.0 : 300	START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 Rated speed rpm : < 220 Check speed 1/min : < 240
Rated speed rpm CRT mm min.	: 200	FUEL DELIVERY CHARACTERISTICS Rated speed rpm : 550 Del. quantity
CONTINUOUS—ACTION Rated speed rpm	<u></u>	cm3/1000 strokes : 162.0 Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 11.15	Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0
Rated speed rpm rack travel mm Tolerance mm	: 550 : 11.15 : + 0.05	Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 119.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: + 0.05	cm3/1000s. : + 4.5 Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 135.0 Tolerance
SETTING Rated speed rpm rack travel mm Tolerance mm	: 400 - : 11.15 - : + 0.05	cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance
MEASUREMENT Rated speed rpm	† †	cm3/1000s. : 12.0 BREAKAWAY

M09

Rack travel in mm: 10.15 Rated speed rpm 1095 Tolerance 1/min

STARTING FUEL DELIVERY

Rated speed rpm 100 Del. quantity cm3/1000 strokes : 135.0 Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 5.20 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.03.94 Test oil : ISO 4113

Combination No. : 0402646797

Injection pump

Pump designation : PE6P12OA32OLS7858

EP type number : 0412626875

Governor

Governer design. : RQ300/1050PA1030-4

Governer no. : C421801664

Cust. part No. : 0230748902

Customer—spec. information Customer : MB-NFZ Motor : OM401 LA Power KW : 180.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Lube oil : 1409918004

Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : +- 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm : 1050

M11

1	مريد ما مريد
Rack travel in mm: 11.15	guide sleeve travel mm : 4.64
Tolerance mm : + 0.05	Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes : 171.0	Rated speed rpm : 490
<u></u>	guide sleeve travel mm : 6.00
Tolerance cm3/1000 strokes : +- 1.0	Tolerance mm : +- 0.10
<u></u>	Rated speed rpm : 1280
Check tolerance + 4.0 +	guide sleeve travel mm : 11.50
	Tolerance mm : + 9.50
Spreed +	
cm3/1000 strokes : 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : 9.0	Rated speed rpm : 600
+	Rack travel in mm : 20.00
2nd speed rpm : 300 +	Tolerance mm : +- 0.80
Rack travel in mm: 5.20	
Tolerance mm : + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity	TOLL LOAD DELIVERY AT TOLL LOAD STOP
cm3/1000 strokes : 19.0	Rated speed rpm : 1050
Tolerance +	Del. quantity
cm3/1000 strokes : + 3.0 +	cm3/1000 strokes : 171.0
Check tolerance	Tolerance
cm3/1000s. : +- 6.0 +	cm3/1000 strokes : +- 1.0
Spreed	Check tolerance
Tolerance	cm3/1000s. : +- 4.0
cm3/1000 strokes : 6.0 — Check tolerance	Spreed
cm3/1000s. : 10.0	Tolerance
10.0	cm3/1000 strokes : 5.0 Check tolerance
I	cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP	CIID7 10003 9.0
WITH GOVERNOR	
+	RATED SPEED
GUIDE SLEEVE TRAVEL	
1	control lever
Rated speed rpm : 300	position degree : 91.0
guide sleeve	tolerance degree : +- 4.0
travel mm : 2.48 +	•
Tolerance mm : + 0.10	rack travel mm : 10.15
Patral and an advantage +	Rated speed rpm : 1098
Rated speed rpm : 1108	Tolerance 1/min : +- 8
guide sleeve	
travel mm : 6.39 Tolerance mm : +- 0.10	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1175
Rated speed rpm : 1050	Tolerance 1/min : +- 15
guide sleeve	rack travel mm : 0.75
travel mm : 6.00	Tolerance mm : + 0.75
Tolerance mm : + 0.10	Rated speed rpm : 1300
+	
Rated speed rpm : 392	
+	LOW IDLE
·	

	†
control Lever position degree : 74.0	FUEL DELIVERY CHARACTERISTICS
tolerance degree : +- 4.0	+ Rated speed rpm : 550 + Del. quantity
Testing:	+ cm3/1000 strokes : 162.0 + Tolerance
Rated speed rpm : 300 rack travel mm : 5.20	cm3/1000 strokes : +- 2.0 Check tolerance
Tolerance mm : +- 0.10	cm3/1000s. : +- 5.0 + Spreed
rack travel mm : 2.00 Rated speed rpm : 380	Tolerance cm3/1000 strokes : 8.0
Tolerance 1/min : +- 20	Check tolerance : 12.0
Rated speed rpm : 200	Rated speed rpm : 400
CRT mm min. :> 7.60	Del. quantity cm3/1000 strokes : 119.0
TORQUE CONTROL	+ Tolerance
	+ cm3/1000 strokes : + 1.5 + Check tolerance
Rated speed rpm : 1050 rack travel mm : 11.15	+ cm3/1000s. : +- 4.5
Tolerance mm : + 0.05	+ Rated speed rpm : 500 + Del. quantity
Rated speed rpm : 550 rack travel mm : 11.15	+ cm3/1000 strokes : 135.0 + Tolerance
Tolerance mm : ← 0.05	+ cm3/1000 strokes : + 1.0 + Check tolerance
Rated speed rpm : 400 rack travel mm : 10.55	+ cm3/1000S. : +- 4.0 + Spreed
Tolerance mm : + 0.10	+ Tolerance + cm3/1000 strokes : 8.0
ANEROID/ALTITUDE	+ Check tolerance + cm3/1000s. : 12.0
COMPENSATOR TEST	
SETTING	BREAKAWAY
Rated speed rpm : 400	Rack travel in mm: 10.15
rack travel mm : 11.15 Tolerance mm : + 0.05	Rated speed rpm : 1098 Tolerance 1/min : +- 8
MEASUREMENT	Ī
Rated speed rpm : 400	STARTING FUEL DELIVERY
rack travel mm : 10.30 Tolerance mm : + 0.15	Rated speed rpm : 100
Rated speed rpm : 400	Rated speed rpm : 100 rack travel mm : 10.10 Tolerance mm : + 0.20
rack travel mm : 10.90 Tolerance mm : +- 0.10	+ Del. quantity + cm3/1000 strokes : 55.0 + Tolerance
rack travel mm : 10.55	+ cm3/1000 strokes : + 15.0 + Check tolerance
Tolerance mm : + 0.10	cm3/1000s. : + 19.0
	•

LOW IDLE

Rated speed rpm rack travel mm Tolerance mm Del. quantity	:	+-	300 5.20 0.30
cm3/1000 strokes	:		19.0
Tolerance cm3/1000 strokes	:	+-	3.0
Check tolerance cm3/1000s.	:	+-	6.0
Spreed Tolerance			
cm3/1000 strokes	:		6.0
Check tolerance cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 15.06.94 Edition Test oil : ISO 4113

Combination No. : 0402736828

Injection pump

Pump designation : PES6P120A720/3LS7251

EP type number : 0412726860

Governor

Governer design. : RQV300...1000PA960

: -7K

Governer no. : 0421815307

Cust. part No. : 3-7207

Customer-spec. information

Customer : MAN Motor : D2866LF09

Power KW : 309.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar 208.5 Tolerance bar : +- 1.5

Lube oil : 1409918004

Test lines : 1680750015

M15

Outside diameter : 6.0

x inside diameter : 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm : 4.85Tolerance mm : $\leftarrow 0.05$

: **←** 0.10 test only

Rack travel in mm: 15.50 Tolerance mm : +- 0.50

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

> : -300 : + 0.30

Tolerance Check

tolerance °NW : **←** 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rated speed rpm	: 900 ‡	Rated speed rpm : 293 guide sleeve
Rack travel in m Tolerance mm		travel mm : 1.97 Tolerance mm : +- 0.25
Del. quantity cm3/1000 strokes	: 296.0	Rated speed rpm : 343 guide sleeve travel mm : 2.62 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 450
Check tolerance cm3/1000s.	: + 4.0	guide sleeve travel mm : 3.71 Tolerance mm : +- 0.25
Spreed Tolerance cm3/1000 strokes	: 10.0	Rated speed rpm : 1260 guide sleeve travel mm : 13.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 14.0	CHARL SI FE POSTITION
2nd speed rpm	: 300	GUIDE SLEEVE POSITION
Rack travel in m Tolerance mm Del. quantity		Rated speed rpm : 1120 Rack travel in mm : 12.50 Tolerance mm : +- 2.00
cm3/1000 strokes Tolerance	: 32.0	Total differential . The Z.DO
cm3/1000 strokes Check tolerance	: + 3.0 	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. Spreed	: ← 6.0	Rated speed rpm : 900 Del. quantity
Tolerance cm3/1000 strokes	: 8.0	cm3/1000 strokes : 296.0 Tolerance
Check tolerance cm3/1000s.	: 12.0	cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 4.0
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	Spreed Tolerance cm3/1000 strokes : 10.0
		Check tolerance cm3/1000s. : 14.0
GUIDE SLEEVE TRAV	IEL T	
Rated speed rpm guide sleeve	: 300	RATED SPEED
travel mm Tolerance mm	: 2.16 : +- 0.25	control lever
Rated speed rpm guide sleeve	: 1058	position degree : 300.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 10.48 : + 0.25	rack travel mm : 12.50 Rated speed rpm : 1045
Rated speed rpm	: 749	Tolerance 1/min : + 5
guide sleeve travel mm Tolerance mm	: 6.97 : + 0.25	rack travel mm : 4.00 Rated speed rpm : 1150 Tolerance 1/min : +- 15
	+	

rack travel mm Tolerance mm Rated speed rpm	: 0.50 : ← 0.50 : 1300	MEASUREMENT Rated speed rpm	: 900
LOW IDLE		rack travel mm Tolerance mm	: 9.10 : + 0.10
control lever position degree tolerance degree	: 256.0 : + 4.0	Rated speed rpm rack travel mm Tolerance mm	
Testing:	. 700	rack travel mm Tolerance mm	
Rated speed rpm rack travel mm Tolerance mm	: 5.20 : + 0.10	START CUT-OUT	سود. بازد و بردور در در در داده در دور استان در و در داده بازد در داده در داده در داده در داده در داده در داده
Rated speed rpm		Rated speed rpm Check	
CRT mm min.	: > 6.70	speed 1/min Rated speed rpm Check	: > 80 : < 240
CONTINUOUS-ACTION		speed 1/min	: < 260
Rated speed rpm	: 360	FUEL DELIVERY CHA	RACTERISTICS
TORQUE CONTROL		Rated speed rpm Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 900 : 13.95 : + 0.05	cm3/1000 strokes Tolerance cm3/1000 strokes	: ← 3.0
Rated speed rpm rack travel mm Tolerance mm	: 1000 : 13.50	Check tolerance cm3/1000s.	: ← 6.0
Tolerance mm Rated speed rpm		Rated speed rpm Del. quantity cm3/1000 strokes	
rack travel mm Tolerance mm	: 13.40	+ Tolerance + cm3/1000 strokes	
Rated speed rpm rack travel mm	: 750 : 6.50	Check tolerance cm3/1000s.	: + 6.0
Tolerance mm	: +- 0.10	Rated speed rpm Del. quantity	
Rated speed rpm rack travel mm Tolerance mm	: 12.00	- cm3/1000 strokes - Tolerance - cm3/1000 strokes	
		+ Check tolerance + cm3/1000s.	: + 8.0
ANEROID/ALTITUDE COMPENSATOR TEST		SpreedTolerancecm3/1000 strokes	: 10.0
SETTING		Check tolerance cm3/1000s.	: 14.0
Rated speed rpm rack travel mm	: 900 : 13.95	Rated speed rpm Del. quantity	: 500
Tolerance mm	: +- 0.05	cm3/1000 strokes	: 169.0

Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 **BREAKAWAY** Rack travel in mm : 12.50 Rated speed rpm : 1045
Tolerance 1/min : +-STARTING FUEL DELIVERY Del. quantity cm3/1000 strokes : 210.0 Tolerance cm3/1000 strokes : + 15.0Check tolerance cm3/1000s.: **←** 19.0 LOW IDLE Rated speed rpm 300 5.20 rack travel mm Tolerance mm : +- 0.20 Del. quantity cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 : +-Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 06.06.94 Edition Test oil : ISO 4113

Combination No. : 0402648926

Injection pump

Pump designation : PE8P120A320LS7840

EP type number : 0412628850

Governor

Governer design. : RQ300/1050PA972-11

Governer no. : 0421801739

Cust. part No. : 0220747002

Customer-spec. information Customer : MB-NFZ Motor : 0M442 A Power KW : 250.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar

Tolerance L/h : +- 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar Tolerance bar

Lube oil : 1409918004 Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : \leftarrow 1.0

Prestroke mm Tolerance mm

test only : **←** 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 8-7-2-6-3 :-5-4-1 Firing order

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 12.60

Tolerance mm : \leftarrow 0.10	Rated speed rpm : 540
Del. quantity	guide sleeve
cm3/1000 strokes : 194.0	· travel mm : 6.00
Tolerance	Tolerance mm : +- 0.10
cm3/1000 strokes : +- 1.0	Rated speed rpm : 1290
<u> </u>	guide sleeve
Check tolerance	travel mm : 11.50
cm3/1000s. : \leftarrow 4.0	Tolerance mm : + 0.50
Spreed	
Tolerance	GUIDE SLEEVE POSITION
cm3/1000 strokes : 8.0	Detail aread (00
Check tolerance	Rated speed rpm : 600
cm3/1000s. : 11.0	Rack travel in mm : 20.00
2nd annual (00	Tolerance mm : + 0.80
2nd speed rpm : 600	
Rack travel in mm: 4.30	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance mm : + 0.30 +	
Del. quantity cm3/1000 strokes : 13.0	Rated speed rpm : 1050
Tolerance	Del. quantity cm3/1000 strokes : 194.0
cm3/1000 strokes : + 3.0	Tolerance
Check tolerance cm3/1000s. : +- 6.0	cm3/1000 strokes : + 1.0
cm3/1000s. : +- 6.0 +- Spreed	Check tolerance cm3/1000s. : +- 4.0
Tolerance 1	Spreed
cm3/1000 strokes : 4.0	Tolerance
Check tolerance cm3/1000s. : 8.0	cm3/1000 strokes : 8.0
1.0000	Check tolerance cm3/1000S. : 11.0
+	. ,,
(B) SETTING OF INJECTION PUMP	DATEN COFFN
WITH GOVERNOR	RATED SPEED
GUIDE SLEEVE TRAVEL	control lever
Rated speed rpm : 300	position degree : 96.0 tolerance degree : +- 4.0
guide sleeve	toter and degree . The 4.0
travel mm : 1.85	rack travel mm : 11.60
Tolerance mm : + 0.10	Rated speed rpm : 1098 Tolerance 1/min : ← 8
Rated speed rpm : 1104	Tolerance 1/min : +- 8
guide sleeve	rack travel mm : 4.00
travel mm : 6.37 Tolerance mm : + 0.10	Rated speed rpm : 1200
Total arte iiii . The b. to	Tolerance 1/min : +- 15
Rated speed rpm : 1050	rack travel mm : 0.75
guide sleeve	Tolerance mm : $\leftarrow 0.75$
travel mm : 6.00 + Tolerance mm : + 0.10	Rated speed rpm : 1250
<u> </u>	
Rated speed rpm : 402	LOW IDLE
guide sleeve travel mm : 3.68	
Tolerance mm : + 0.10	

control lever position degree : 74.0 tolerance degree : +- 4.0 Testing:	Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0
resting.	+ Check tolerance + cm3/1000s. : 12.0
Rated speed rpm : 300 rack travel mm : 6.50 Tolerance mm : +- 0.10	Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 138.0
rack travel mm : 2.00 Rated speed rpm : 435 Tolerance 1/min : + 20	+ Tolerance + cm3/1000 strokes : +- 1.0
Rated speed rpm : 200	Check tolerance cm3/1000s. : +- 4.0 Spreed
CRT mm min. : > 7.90	Tolerance cm3/1000 strokes : 8.0 Check tolerance
TORQUE CONTROL	+ cm3/1000s. : 12.0
Rated speed rpm : 1050 rack travel mm : 12.60 Tolerance mm : + 0.10	BREAKAWAY
Rated speed rpm : 800 rack travel mm : 12.60 Tolerance mm : + 0.10	Rack travel in mm : 11.60 Rated speed rpm : 1098 Tolerance 1/min : +- 8
ANEROID/ALTITUDE COMPENSATOR TEST	STARTING FUEL DELIVERY
	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0
COMPENSATOR TEST	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
COMPENSATOR TEST SETTING Rated speed rpm : 500	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 10.0
COMPENSATOR TEST SETTING Rated speed rpm : 500 MEASUREMENT Rated speed rpm : 500 rack travel mm : 0.45 Tolerance mm : + 0.05	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
COMPENSATOR TEST SETTING Rated speed rpm : 500 MEASUREMENT Rated speed rpm : 500 rack travel mm : 0.45	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm : 600 rack travel mm : 4.30 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 13.0
SETTING Rated speed rpm : 500 MEASUREMENT Rated speed rpm : 500 rack travel mm : 0.45 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 1.45	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 600 rack travel mm : 4.30 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance
SETTING Rated speed rpm : 500 MEASUREMENT Rated speed rpm : 500 rack travel mm : 0.45 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : - 1.45 Tolerance mm : + 0.10	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0 LOW IDLE Rated speed rpm : 600 rack travel mm : 4.30 Tolerance mm : + 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed
SETTING Rated speed rpm : 500 MEASUREMENT Rated speed rpm : 500 rack travel mm : 0.45 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 0.45 Tolerance mm : + 0.05 Rated speed rpm : 500 rack travel mm : 1.45 Tolerance mm : + 0.10 FUEL DELIVERY CHARACTERISTICS Rated speed rpm : 800 Del. quantity	Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 190.0 Tolerance cm3/1000 strokes : +- 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm : 600 rack travel mm : 4.30 Tolerance mm : +- 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07.06.94 : ISO 4113

Combination No. : 0402648929

Injection pump

Pump designation: PE8P120A320LS7847-2

EP type number : 0412628885

Governor

Governer design. : RQV300...950PA1033

: -12

Governer no.

: 0421814093

Cust. part No. : 0230741402

Customer-spec. information : MB-NFZ Customer : 0M402 LA Motor

Power KW

: 280.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

assembly : 1688901105

Opening pressure

208.5 Tolerance bar : + 1.5

Lube oil : 1409918004

Test lines : 1680750075 Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : + 0.10

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 8

BASIC SETTING

Rated speed rpm : 550

Rack travel in mm : 14.80 Tolerance mm : \leftarrow 0.05

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	Rated speed rpm : 790
Del. quantity cm3/1000 strokes : 239.0	guide sleeve travel mm : 6.48
Tolerance cm3/1000 strokes : + 1.0	
Check tolerance	guide sleeve : 10.00
cm3/1000s. : + 4.0	Tolerance mm : + 0.25
Spreed Tolerance cm3/1000 strokes : 6.0	+ Rated speed rpm : 1210 + guide sleeve + travel mm : 11.50 + Tolerance mm : +- 0.50
Check tolerance cm3/1000s. : 9.0	CLIDE OF THE CONTROL
2nd speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm : 5.70 Tolerance mm : + 0.30	Rated speed rpm : 1045
Del. quantity cm3/1000 strokes : 13.0	Rack travel in mm : 13.00 Tolerance mm : +- 1.30
Tolerance cm3/1000 strokes : +- 3.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1900S. : +- 6.0	Rated speed rpm : 550
Spreed Tolerance	Del. quantity cm3/1000 strokes : 239.0
cm3/1000 strokes : 8.0 Check tolerance	Tolerance + cm3/1000 strokes : +- 1.0
cm3/1000s. : 10.0	+ Check tolerance + cm3/1000s. : + 4.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Spreed + Tolerance + cm3/1000 strokes : 6.0
	Check tolerance cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	
Rated speed rpm : 300 guide sleeve	RATED SPEED
travel mm : 1.49 Tolerance mm : + 0.15	†
	+ control lever + position degree : 122.0
Rated speed rpm : 1009 guide sleeve	tolerance degree : + 4.0
travel mm : 8.52 Tolerance mm : + 0.20	rack travel mm : 13.00 Rated speed rpm : 998
Rated speed rpm : 589	Tolerance 1/min : +- 8
guide sleeve travel mm : 4.97	+ rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1095 Tolerance 1/min : +- 15
Rated speed rpm : 639 guide sleeve	rack travel mm : 0.75 Tolerance mm : + 0.75
travel mm : 5.51 Tolerance mm : + 0.25	Rated speed rpm : 1350
	+

	†	Tolerance mm	: +- 0.05
LOW IDLE	<u> </u>	MEASUREMENT	
control lever position degree : tolerance degree : A	68.0 - 4.0	Rated speed rpm rack travel mm Tolerance mm	: 10.60
Testing:	1	Rated speed rpm	: 400
Rated speed rpm : rack travel mm : Tolerance mm : +	300 + 5.50 + - 0.10 +	rack travel mm Tolerance mm	: +- 0.10
Rated speed rpm :	+	rack travel mm Tolerance mm	: +- 0.15
CRT mm min. :>	· 7.60	START CUT-OUT	ب و غیرف کی بر در در در در در در در در در در در در در
CONTINUOUS-ACTION CON	ITROL	Rated speed rpm Check	
Rated speed rpm :	375	speed 1/min Rated speed rpm Check	
TORQUE CONTROL	+	speed 1/min	: < 240
Rated speed rpm : rack travel mm :	14.80	FUEL DELIVERY CHA	RACTERISTICS
Tolerance mm : +	+	Rated speed rpm Del. quantity	
Rated speed rpm : rack travel mm : +	14.05 - 0.10	cm3/1000 strokes Tolerance cm3/1000 strokes	: + 2.0
Rated speed rpm : rack travel mm : +	14.10	Check tolerance cm3/1000s. Spreed Tolerance	: ← 5.0
Rated speed rpm : rack travel mm :	1	cm3/1000 strokes Check tolerance cm3/1000s.	
Tolerance mm : ↔	- 0.10	Rated speed rpm	
Rated speed rpm : rack travel mm : + Tolerance mm : +	14.75 - 0.10	Del. quantity cm3/1000 strokes Tolerance	
Rated speed rpm : rack travel mm : +	400	cm3/1000 strokes Check tolerance cm3/1000s.	: ← 1.5 : ← 4.5
Tolerance mm : +-	- 0.10 +	Rated speed rpm	
ANEROID/ALTITUDE COMPENSATOR TEST		Del. quantity cm3/1000 strokes Tolerance	: 108.0
	Ŧ	cm3/1000 strokes Check tolerance	: + 1.0
SETTING	<u>+</u>	cm3/1000s. Spreed	: ← 4.0
Rated speed rpm : rack travel mm :	400 14.80	Tolerance cm3/1000 strokes	: 8.0

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Check tolerance cm3/1000s. : 12.0 **BREAKAWAY** Rack travel in mm: 13.00 Rated speed rpm : Tolerance 1/min : +-STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 15.30 Tolerance mm : + - 0.25Del. quantity cm3/1000 strokes : 200.0 Tolerance cm3/1000 strokes : \leftarrow 20.0 Check tolerance cm3/1000s. : +- 24.0 LOW IDLE Rated speed rpm 300 rack travel mm 5.70 Tolerance mm : **←** 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 07.06.94 Edition : ISO 4113 Test oil

Combination No. : 0402648931B

Injection pump

Pump designation : PE8P120A320LS7847-3

EP type number : 0412628886

Governor

Governer design. : RQ300/950PA1032-7

Governer no. : 0421801715

Cust. part No. : 0230741302

Customer-spec. information Customer : MB-NFZ Motor : 0M402 LA Power KW : 280.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar :+ 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar Tolerance bar 1.5

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

: 5.55 Prestroke mm ÷ ← 0.05 Tolerance mm

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. :

BASIC SETTING

Rack travel in m Tolerance mm		travel mm : 6.13 Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes	: 239.0	Rated speed rpm : 415 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	travel mm : 3.82 Tolerance mm : + 0.10
Check tolerance cm3/1000S.	: +- 4.0	Rated speed rpm : 550 guide sleeve travel mm : 6.00
Spreed Tolerance cm3/1000 strokes	: 6.0	Tolerance mm : +- 0.10 Rated speed rpm : 1160 guide sleeve
Check tolerance cm3/1000s.	. 0.0	travel mm : 11.50 Tolerance mm : + 0.50
2nd speed rpm	: 300	Rated speed rpm : 833 guide sleeve travel mm : 6.38
Rack travel in m Tolerance mm Del. quantity		Tolerance mm : +- 0.10
cm3/1000 strokes Tolerance		GUIDE SLEEVE POSITION
cm3/1000 strokes Check tolerance		Rated speed rpm : 600
cm3/1000S. Spreed Tolerance	: 6.0	Rack travel in mm : 20.00 Tolerance mm : + 0.80
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0 : 10.0	FULL LOAD DELIVERY AT FULL LOAD STOP
		Rated speed rpm : 550 Pel. quantity
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP	+ cm3/1000 strokes : 239.0 + Tolerance + cm3/1000 strokes : + 1.0
GUIDE SLEEVE TRAV	/EL	+ Check tolerance + cm3/1000s. : +- 4.0
Rated speed rpm guide sleeve	: 300	+ Spreed + Tolerance + cm3/1000 strokes : 6.0
travel mm Tolerance mm	: 1.74 : +- 0.10	Check tolerance cm3/1000S. : 9.0
Rated speed rpm guide sleeve		RATED SPEED
travel mm Tolerance mm	: 6.84 : + 0.10	t control lever
Rated speed rpm guide sleeve	: 950	position degree : 97.0 tolerance degree : +- 4.0
travel mm Tolerance mm	: 6.50 : +- 0.10	rack travel mm : 13.00 Rated speed rpm : 998
Rated speed rpm	: 736	Tolerance 1/min : + 8

rack travel mm : 4.00 Rated speed rpm : 1085	<u> </u>
Tolerance 1/min : +- 15	ANEROID/ALTITUDE COMPENSATOR TEST
rack travel mm : 0.75	+ Control (Est
Tolerance mm : +- 0.75 Rated speed rpm : 1350	SETTING
LOW IDLE	Rated speed rpm : 400 rack travel mm : 14.80 Tolerance mm : + 0.05
control lever position degree : 73.0	MEASUREMENT
tolerance degree : +- 4.0	Rated speed rpm : 400 rack travel mm : 10.60
Testing:	Tolerance mm : + 0.20
Rated speed rpm : 300 rack travel mm : 5.50	Rated speed rpm : 400
rack travel mm : 5.50 Tolerance mm : + 0.10	rack travel mm : 12.90 Tolerance mm : +- 0.10
rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : +- 20	rack travel mm : 11.90
Tolerance 1/min : +- 20	+ rack travel mm : 11.90 + Tolerance mm : ← 0.15
Rated speed rpm : 200	
CRT mm min. :> 7.50	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL	- + Rated speed rpm : 950 - Del. quantity
	+ cm3/1000 strokes : 214.0
Rated speed rom : 550	+ Tolerance
Rated speed rom : 550 rack travel mm : 14.80 Tolerance mm : + 0.05	+ Tolerance - cm3/1000 strokes : +- 2.0 - Check tolerance
rack travel mm : 14.80 Tolerance mm : +- 0.05	- cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 5.0
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00	- cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 5.0 - Spreed - Tolerance
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10	- cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000S. : +- 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10	- cm3/1000 strokes : +- 2.0 - Check tolerance - cm3/1000s. : +- 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0 - Tolerance - cm3/1000 strokes : + 1.5
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875 rack travel mm : 14.25 Tolerance mm : + 0.10 Rated speed rpm : 800	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0 - Tolerance
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875 rack travel mm : 14.25 Tolerance mm : + 0.10	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0 - Tolerance - cm3/1000 strokes : + 1.5 - Check tolerance - cm3/1000s. : + 4.5 - Rated speed rpm : 400
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875 rack travel mm : 14.25 Tolerance mm : + 0.10 Rated speed rpm : 800 rack travel mm : 14.75 Tolerance mm : + 0.10 Rated speed rpm : 400	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0 - Tolerance - cm3/1000 strokes : + 1.5 - Check tolerance - cm3/1000s. : + 4.5
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875 rack travel mm : 14.25 Tolerance mm : + 0.10 Rated speed rpm : 800 rack travel mm : 14.75 Tolerance mm : + 0.10	- cm3/1000 strokes : + 2.0 - Check tolerance - cm3/1000s. : + 5.0 - Spreed - Tolerance - cm3/1000 strokes : 8.0 - Check tolerance - cm3/1000s. : 12.0 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 166.0 - Tolerance - cm3/1000 strokes : + 1.5 - Check tolerance - cm3/1000s. : + 4.5 - Rated speed rpm : 400 - Del. quantity - cm3/1000 strokes : 108.0 - Tolerance - cm3/1000 strokes : + 1.0
rack travel mm : 14.80 Tolerance mm : + 0.05 Rated speed rpm : 950 rack travel mm : 14.00 Tolerance mm : + 0.10 Rated speed rpm : 900 rack travel mm : 14.10 Tolerance mm : + 0.10 Rated speed rpm : 875 rack travel mm : 14.25 Tolerance mm : + 0.10 Rated speed rpm : 800 rack travel mm : 14.75 Tolerance mm : + 0.10 Rated speed rpm : 400 rack travel mm : 12.90	cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Rated speed rpm : 400 Del. quantity cm3/1000s. : + 4.5 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 108.0 Tolerance

Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0 **BREAKAWAY** Rack travel in mm: 13.00 Rated speed rpm Tolerance 1/min STARTING FUEL DELIVERY Rated speed rpm 100 10.60 rack travel mm : **←** 0.50 Tolerance mm Del. quantity cm3/1000 strokes : 60.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : +- 14.0 LOW IDLE Rated speed rpm 300 rack travel mm 5.70 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000S. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.06.94 Test oil : ISO 4113

Combination No. : 04026489310

Injection pump

Pump designation : PE8P120A320LS7847-2

EP type number : 0412628885

Governor

Governer design. : 約0300/950PA1032-7

Governer no. : 0421801715

Cust. part No. : 0230741302

Customer-spec. information Customer : MB-NFZ Motor : 0M402 LA Power KW : 280.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

bar Tolerance bar 1.5

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : +- 0.05

: + 0.10 test only

Rack travel in mm: Tolerance mm : +~ 0.50

: 8-7-2-6-3 :-5-4-1 Firing order

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : **←** 0.30

Check

tolerance $^{\circ}NW$: $\leftarrow 0.75$

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 8

BASIC SETTING

Rack travel in m Tolerance mm	m : 14.80 : ← 0.05	function of the state of the st
Del. quantity cm3/1000 strokes	: 239.0	Rated speed rpm : 415 guide sleeve
Tolerance cm3/1000 strokes	: - 1.0	travel mm : 3.82 Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: + 4.0	+ Rated speed rpm : 550 + guide sleeve + travel mm : 6.00
Spreed Tolerance	-	Tolerance mm : + 0.10 Rated speed rpm : 1160
cm3/1000 strokes	: 6.0	guide sleeve travel mm : 11.50
Check tolerance cm3/1000s.	: 9.0	Tolerance mm : +- 0.50 Rated speed rpm : 833
2nd speed rpm	: 300	guide sleeve travel mm : 6.38
Rack travel in m Tolerance mm Del. quantity		+ Tolerance mm : + 0.10
cm3/1000 strokes Tolerance	4	GUIDE SLEEVE POSITION
cm3/1000 strckes Check tolerance cm3/1000s.	: 	Rated speed rpm : 600
Spreed Tolerance		Rack travel in mm : 20.00 Tolerance mm : +- 0.80
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
		Rated speed rpm : 550 Del. quantity
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP	cm3/1000 strokes : 239.0 Tolerance
CHINE OF EDIE TONY		- Check tolerance
GUIDE SLEEVE TRAV Rated speed rpm	: 300	- cm3/1000S. : +- 4.0 - Spreed - Tolerance
guide sleeve travel mm	: 1.74	- cm3/1000 strokes : 6.0 - Check tolerance
Tolerance mm	: ← 0.10	- cm3/1000s. : 9.0
Rated speed rpm guide sleeve travel mm	: 1005 : 6.84	RATED SPEED
Tolerance mm	: + 0.10	- - control lever
Rated speed rpm guide sleeve	1	- position degree : 97.0 - tolerance degree : + 4.0
travel mm Tolerance mm	: 6.50 : + 0.10	rack travel mm : 13.00
Rated speed rpm	: 736	- Rated speed rpm : 998 - Tolerance 1/min : +- 8 -
	·	

Pated speed rom	: 4.00 : 1085	T
Rated speed rpm Tolerance 1/min		ANEROID/ALTITUDE COMPENSATOR TEST
rack travel mm Tolerance mm Rated speed rpm	: 0.75 : + 0.75	
Rated speed rpm	: 1350	SETTING
LOW IDLE		Rated speed rpm : 400 rack travel mm : 14.80 Tolerance mm : + 0.05
control lever position degree	: 73.0	MEASUREMENT
tolerance degree	e : 4.0	Rated speed rpm : 400 rack travel mm : 10.60 Tolerance mm : + 0.20
Testing:		Tolerance mm : + 0.20
Rated speed rpm rack travel mm	: 300 : 5.50	Rated speed rpm : 400
rack travel mm Tolerance mm	: ← 0.10	rack travel mm : 12.90 Tolerance mm : + 0.10
rack travel mm	: 2.00 · 420	+
Rated speed rpm Tolerance 1/min	: + 20	+ rack travel mm : 11.90 + Tolerance mm : + 0.15
Rated speed rpm	: 200	
CRT mm min.	: > 7.50	FUEL DELIVERY CHARACTERISTICS
TORQUE CONTROL		Rated speed rpm : 950 Del. quantity
		- cm3/1000 strokes : 214.0
Pated encod nom	. 550	
Rated speed rpm rack travel mm	: 550 : 14.80	+ Tolerance + cm3/1000 strokes : +- 2.0
Rated speed rpm rack travel mm Tolerance mm	: 550 : 14.80 : + 0.05	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
Rated speed rom	: 950	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed
Rated speed rom	: 950 : 14.00	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0
Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : +- 0.10 : 900	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000S. : +- 5.0 Spreed Tolerance
Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : +- 0.10 : 900 : 14.10	Tolerance
Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity
Rated speed rom rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance
Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25 : + 0.10	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rom rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm Rated speed rpm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25 : + 0.10	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5
Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25 : + 0.10 : 800 : 14.75	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Rated speed rpm : 400
Rated speed rom rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25 : + 0.10 : 800 : 14.75 : + 0.10 : 400	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Rated speed rpm : 400 Del. quantity cm3/1000s. : + 4.5
Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm Rated speed rom rack travel mm Tolerance mm	: 950 : 14.00 : + 0.10 : 900 : 14.10 : + 0.10 : 875 : 14.25 : + 0.10 : 800 : 14.75 : + 0.10 : 400 : 12.90	Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 Rated speed rpm : 400 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/1000s. : + 4.5 Rated speed rpm : 400 Del. quantity

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

BREAKAWAY

Rack travel in mm: 13.00 Rated speed rpm Tolerance 1/min : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 10.60 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 60.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance cm3/1000S. : + 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 5.70 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000S. ; +-6.0 Spreed Tolerance 6.0

cm3/1000 strokes :

Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.06.94 Test oil : ISO 4113

Combination No. : 0402648940

Injection pump

Pump designation : PE8P120A320LS7847-3

EP type number : 0412628886

Governor

Governer design. : RQ300/950PA1032-11

Governer no. : 0421801737

Cust. part No. : 0240740602

Customer—spec. information Customer : MB-NFZ Motor : OM402 LA Power KW : 280.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5Tolerance bar : \leftarrow 0.1

Tolerance l/h: + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Lube cil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0
Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

test only : \leftarrow 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance °NW : \leftarrow 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 8

BASIC SETTING

Rated speed rpm : 550

Rack travel in mm: 14.40

Tolerance mm : +- 0.05	+
Del. quantity	Rated speed rpm : 415 guide sleeve
cm3/1000 strokes : 226.0	+ travel mm : 3.72
Tolerance	Tolerance mm : +- 0.10
cm3/1000 strokes : +- 1.0	+ Rate speed rpm : 550 + guide sleeve
Check tolerance	+ travel mm : 6.00
cm3/1000s. : + 4.0	Tolerance mm : +- 0.10
Spreed Tolerance	+ Rated speed rpm : 1160
cm3/1000 strokes : 6.0	+ guide sleeve + travel mm : 11.50
	+ Tolerance mm : + 0.50
Check tolerance cm3/1000s. : 9.0	+ Pated speed rpm : 864
	+ guide sleeve
2nd speed rpm : 300	+ travel mm : 6.26
Rack travel in mm : 5.70	Tolerance mm : + 0.10
Tolerance mm : + 0.30	
Del. quantity	+ GUIDE SLEEVE POSITION
cm3/1000 strokes : 13.0 Tolerance	Total aread and (00)
cm3/1000 strokes : + 3.0	Rated speed rpm : 600
Check tolerance	Rack travel in mm: 20.00
cm3/1000s. : +- 6.0	Tolerance mm : + 0.80
Spreed Tolerance	İ
cm3/1000 strokes : 6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : 10.0	+
: (U.U	Rated speed rpm : 550 Del. quantity
	cm3/1000 strokes : 226.0
(B) SETTING OF INJECTION PUMP	+ Tolerance
WITH GOVERNOR	- cm3/1000 strokes : + 1.0 - Check tolerance
	+ cm3/1000s. : +- 4.0
GUIDE SLEEVE TRAVEL	Spreed
Rated speed rpm : 300	Tolerance cm3/1000 strokes : 6.0
guide sleeve	+ cm3/1000 strokes : 6.0 - Check tolerance
travel mm : 1.63	- cm3/1000s. : 9.0
Tolerance mm : + 0.10	<u></u>
Rated speed rpm : 1005	RATED SPEED
guide sleeve	+
travel mm : 6.69 - Tolerance mm : +- 0.10 -	t control lever
Total talloc light U. (U	position degree : 97.0
Rated speed rpm : 950	tolerance degree : + 4.0
guide sleeve - travel mm : 6.35 -	made Americal Investorial AZ 00
Tolerance mm : + 0.10	rack travel mm : 13.00 Rated speed rpm : 998
-	Tolerance 1/min : + 8
Rated speed rpm : 800	-
guide sleeve travel mm : 6.09	- rack travel mm : 4.00 - Rated speed rpm : 1080
Tolerance mm : + 0.10	- Rated speed rpm : 1080 - Tolerance 1/min : +- 15
•	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

rack travel mm Tolerance mm Rated speed rpm	: ← 0.75 : 1350	rack travel mm : 10.60 Tolerance mm : +- 0.20 Rated speed rpm : 400
LOW IDLE		rack travel mm : 12.90 Tolerance mm : + 0.10
control lever position degree tolerance degree	: 72.0 : + 4.0	rack travel mm : 12.90 Tolerance mm : + 0.10 rack travel mm : 11.90 Tolerance mm : + 0.15 START CUT-OUT Rated speed rpm : > 100 Check speed 1/min : > 80 Rated speed rpm : > 220 Check speed 1/min : > 240
Testing:		START CUT-OUT
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.50 : + 0.10	Rated speed rpm : > 100 Check speed 1/min : > 80 Rated speed rpm : > 220
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 405 : + 20	
Rated speed rpm	-	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 7.00	Rated speed rpm : 950 Del. quantity cm3/1000 strokes : 214.0
TORQUE CONTROL		Tolerance cm3/1000 strokes : +- 2.0
Rated speed rpm rack travel mm Tolerance mm	: 550 - : 14.40 -	Check tolerance cm3/1000s. : +- 5.0 Spreed
	4	- Tolerance - cm3/1000 strokes : 8.0 - Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 14.00 : + 0.10	- cm3/1000s. : 12.0
Rated speed rpm	-	- Rated speed rpm : 400 - Del. quantity
rack travel mm Tolerance mm	: 14.40 : + 0.05	- cm3/1000 strokes : 166.0 - Tolerance
Rated speed rpm	· 4nn 1	- cm3/1000 strokes : +- 1.5 - Check tolerance
rack travel mm Tolerance mm	: 12.90 : + 0.10	- cm3/1000s. : +- 4.5
		- Rated speed rpm : 400 - Del. quantity
ANEROID/ALTITUDE COMPENSATOR TEST	‡	- cm3/1000 strokes : 108.0 - Tolerance
07	‡	- cm3/1000 strokes : +- 1.0 - Check tolerance
SETTING	122	- cm3/1000s. : +- 4.0 - Spreed
Rated speed rpm rack travel mm Tolerance mm	: 14.40 	- Tolerance - cm3/1000 strokes : 8.0 - Check tolerance
MEASUREMENT	+	- cm3/1000s. : 12.0
Rated speed rpm	: 400	BREAKAWAY

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Rack travel in mm : 13.00
Rated speed rpm : 998
Tolerance 1/min : + 8

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 210.0
Tolerance
cm3/1000 strokes : +- 10.0
Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 300 rack travel mm 5.70 0.30 Tolerance mm Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 : +-Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07.06.94 : ISO 4113

Combination No. : 0402648940B

Injection pump

Pump designation: PE8P120A320LS7847-3

EP type number : 0412628886

Governor

Governer design. : RQ300/950PA1032-8

Governer no. : 0421801723

Cust. part No. : 0240740602

Customer-spec, information : MB-NFZ Customer : 0M402 LA Motor Power KW

: 280.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar 0.1

Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

Tolerance bar

Lube oil : 1409918004 Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance mm

test only : **←** 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

: 8-7-2-6-3 :-5-4-1 Firing order

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 8

BASIC SETTING

Rated speed rpm : 550

Rack travel in mm: 14.40

Tolerance mm :	← 0.05 +	
Del. quantity		Rated speed rpm : 415 guide sleeve
cm3/1000 strokes :	226.0	travel mm : 3.72 Tolerance mm : +- 0.10
Tolerance cm3/1000 strokes :	+ 1.0	Rated speed rpm : 550 guide sleeve
Check tolerance cm3/1000s.	+ 4.0	travel mm : 6.00 Tolerance mm : + 0.10
Spreed	+	Rated speed rpm : 1160
Tolerance cm3/1000 strokes :	6.0	guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Check tolerance cm3/1000s.	9.0	
•	+	quide sleeve
	300	travel mm : 6.26 Tolerance mm : +- 0.10
Rack travel in mm : Tolerance mm :	5.70 + 0.30	
Del. quantity	1	GUIDE SLEEVE POSITION
cm3/1000 strokes : Tolerance	13.0	Poted around man . 400
cm3/1000 strokes :	← 3.0 Ţ	Rated speed rpm : 600
Check tolerance	. , , , , , , , , , , , , , , , , , , ,	Rack travel in mm : 20.00
cm3/1000s. : · Spreed	← 6.0 ±	Tolerance mm : ← 0.80
Tolerance	+	
cm3/1000 strokes : Check tolerance	6.0	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. :	10.0	Rated speed rpm : 550
	†	Del. quantity cm3/1000 strokes : 226.0
(B) SETTING OF INJECT	TION PUMP	cm3/1000 strokes : 226.0 Tolerance
WITH GOVERNOR	+	cm3/1000 strokes : +- 1.0
		Check tolerance cm3/1000S. : +- 4.0
GUIDE SLEEVE TRAVEL	+	Spreed
Rated speed rpm :	300	Tolerance cm3/1000 strokes : 6.0
guide sleeve	I I	cm3/1000 strokes : 6.0 Check tolerance
travel mm :	1.63	cm3/1000s. : 9.0
Toterance mm : 1	⊢ 0.10 <u>†</u>	
Rated speed rpm : guide sleeve	1005	RATED SPEED
travel mm : +	6.69	
roterance mm : +	- 0.10	control lever position degree : 97.0
Rated speed rpm : guide sleeve	950	tolerance degree : + 4.0
travel mm :	6.35	rack travel mm : 13.00
Tolerance mm : +	- 0.10	Rated speed rpm : 998 Tolerance 1/min : +- 8
Rated speed rpm :	800 I	
guide sleeve travel mm :	6.09	rack travel mm : 4.00
	- 0.10 [‡]	Rated speed rpm : 1080 Tolerance 1/min : +- 15
•		TO LOT WINDO TO MISSEL TO 10

rack travel mm Tolerance mm	: 0.75 : + 0.75	‡	rack travel mm Tolerance mm
Rated speed rpm		1	Rated speed rpa
LOW IDLE		— <u> </u>	rack travel mm Tolerance mm
control lever position degree tolerance degree	: 72.0 : + 4.0	 - - -	rack travel mm Tolerance mm
Testing:		‡	FUEL DELIVERY (
Rated speed rpm rack travel mm Tolerance mm	: 300 : 5.50 : + 0.10	+	Rated speed rpm Del. quantity cm3/1000 stroke
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 405 : ← 20	Ī	Tolerance cm3/1000 stroke Check tolerance cm3/1000S. Spreed
Rated speed rpm	: 200	Ŧ	Tolerance cm3/1000 stroke
CRT mm min.	: > 7.00	Ī	Check tolerance cm3/1000s.
Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 14.40 : + 0.05 : 950 : 14.00 : + 0.10 : 825 : 14.40 : + 0.05		Rated speed rpm Del. quantity cm3/1000 stroke Tolerance cm3/1000 stroke Check tolerance cm3/1000s. Rated speed rpm Del. quantity cm3/1000 stroke Tolerance cm3/1000 stroke Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 stroke Check tolerance cm3/1000s.
SETTING		‡	BREAKAWAY
Rated speed rpm rack travel mm Tolerance mm	: 400 : 14.40 : ← 0.05	‡	Rack travel in m Rated speed rpm Tolerance 1/min
MEASUREMENT		‡	
Rated speed rpm	: 400	Ī	STARTING FUEL DE

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m : 10.60 : + 0.20 : 400 : 12.90 : + 0.10 m : 11.90 : +- 0.15 CHARACTERISTICS 950 ces : 214.0 xes : +- 2.0 : **←** 5.0 es : 8.0 12.0 400 166.0 es : ← 1.5 es : **←** 4.5 400 108.0 es : ← 1.0 es : **←** 4.0 8.0 es : 12.0 : mm: 13.00 n: 998 n: ← 8 ELIVERY

Rated speed rpm : 100 rack travel mm : 10.60 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 60.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm 300 5.70 rack travel mm Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes 3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.94 Test oil : ISO 4113

Combination No. : 0402646977

Injection pump

Pump designation : PE6P120A320LS7846

EP type number : 0412626865

Governor

Governer design. : RQ300/1050PA1030-14

Governer no. : 0421801731

Cust. part No. : 0230741002

Customer-spec. information Customer : MB-NFZ Motor : 0M401 LA

Power KW : 230.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5 : ÷ 0.1 Tolerance bar

Tolerance l/h: +- 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

Tolerance bar : + 1.5

Lube oil : 1409918004 Test Lines : 1680750075

Outside diameter : 8.0

x inside diameter: 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : +- 0.05 Tolerance mm

test only : +- 0.10

Rack travel in mm : 20.50Tolerance mm : +0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rack travel in m Tolerance mm	m: 13.00 : + 0.05	‡	guide sleeve travel mm : 3.87 Tolerance mm : +- 0.10
Del. quantity cm3/1000 strokes	: 231.0	 ‡	Rated speed rpm : 510 guide sleeve
Tolerance cm3/1000 strokes	: + 1.0	 ‡	travel mm : 6.00 Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: + 4.0	‡	Rated speed rpm : 1280 guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Spreed Tolerance cm3/1000 strokes	: 5.0	<u> </u>	Tolerance mm : + 0.50 GUIDE SLEEVE FOSITION
Check tolerance cm3/1000s.	: 9.0		Rated speed rpm : 600
2nd speed rpm	: 300	‡	Rack travel in mm : 20.00 Tolerance mm : + 0.80
Rack travel in m		Į	
Tolerance mm Del. quantity	: +- 0.30	İ	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Tolerance	: 13.0	7	Rated speed rpm : 700
cm3/1000 strokes	: ← 3.0	‡	Del. quantity cm3/1000 strokes : 231.0
Check tolerance cm3/1000s.	: +- 6.0	1	Tolerance cm3/1000 strokes : +- 1.0
Spreed Tolerance		+	Check tolerance
cm3/1000 strokes	: 6.0	‡	cm3/1000s. : +- 4.0 Spreed
Check tolerance cm3/1000s.	: 10.0	<u>†</u>	Tolerance cm3/1000 strokes : 5.0
		+	Check tolerance
(B) SETTING OF IN	JECTION PUMP	Ţ	cm3/1000s. : 9.0
WITH GOVERNOR		‡	RATED SPEED
GUIDE SLEEVE TRAV		+	
		Ī	control lever
Rated speed rpm guide sleeve	: 300	‡	position degree : 97.0 tolerance degree : + 4.0
travel mm	: 1.88	+	•
Tolerance mm	: +- 0.10	‡	rack travel mm : 12.00 Rated speed rpm : 1098
Rated speed rpm guide sleeve	: 1104	+	Tolerance 1/min : + 8
travel mm	: 6.37	Į	rack travel mm : 4.00
Tolerance mm	: ← 0.10	<u>†</u>	Rated speed rpm : 1195 Tolerance 1/min : + 15
Rated speed rpm	: 1050	Ŧ	
guide sleeve travel mm	: 6.00		rack travel mm : 0.75 Tolerance mm : + 0.75
Tolerance mm	: ← 0.10		Rated speed rpm : 1300
Rated speed rpm	: 387	Į.	
		+	LOW IDLE

		+		
control lever position degree	: 74.0	‡	START CUT-OUT	
tolerance degree	: + 4.0	‡	Rated speed rpm :>	100
Testing:		1	speed 1/min :> Rated speed rpm :<	80 220
Rated speed rpm rack travel mm	: 300 : 5.20	Ŧ	Check	
Tolerance mm		Ŧ	speed 1/min : <	240
rack travel mm Rated speed rpm	: 2.00 : 385	Ŧ	FUEL DELIVERY CHARACTERI	STICS
Tolerance 1/min	: + 20	Ŧ	Rated speed rpm : 10	50
Rated speed rpm	: 200	Ŧ		28.0
CRT mm min.	: > 7.50	‡	Tolerance cm3/1000 strokes : +-	2.0
	·	‡	Check tolerance cm3/1000s. : +-	5.0
TORQUE CONTROL		<u> </u>	Spreed Tolerance	
Rated speed rpm rack travel mm	: 700 : 13.00	+	cm3/1000 strokes :	8.0
Tolerance mm		Ŧ	Check tolerance cm3/1000s. :	12.0
Rated speed rpm rack travel mm	: 1050	‡		00
Tolerance im	: + 0.10	‡	Del. quantity cm3/1000 strokes : 1	58.0
Rated speed rpm	: 400	‡	Tolerance cm3/1000 strokes : +-	1.5
rack travel mm Tolerance mm	: 11.55 : + 0.10	‡	Check tolerance cm3/1000s. : +-	4.5
		‡	Rated speed rpm : 50	00
ANEROID/ALTITUDE COMPENSATOR TEST		‡		32.0
		‡	Tolerance cm3/1000 strokes : +-	1.0
SETTING		1	Check tolerance cm3/1000s. : +-	4.0
Rated speed rpm rack travel mm	: 400 : 13.00	<u> </u>	Spreed Tolerance	
Tolerance mm		+	cm3/1000 strokes :	8.0
MEASUREMENT		‡	Check tolerance cm3/1000s. : 1	2.0
Rated speed rpm	: 400	‡		
rack travel mm Tolerance mm	: 10.35 : + 0.15	‡	BREAKAWAY	
Rated speed rpm	: 400	‡	Rack travel in mm : 12	.00
rack thavel mm Tolerance mm	: 11.55 : ← 0.10	‡	Rated speed rpm : 109 Tolerance 1/min : +-	8 8
rack travel mm Tolerance mm	: 12.50 : + 0.10	† †	STARTING FUEL DELIVERY	
		+		

Rated speed rpm 100 Del. quantity

cm3/1000 strokes : 280.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : **←** 19.0

LOW IDLE

cm3/1000S.

Rated speed rpm 300 rack travel mm 5.20 Tolerance mm 0.30 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes 6.0 Check tolerance

10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.05.94 : ISO 4113

Combination No. : 0402646979

Injection pump

Pump designation : PE6P120A320LS7846

EP type number : 0412626865

Governor

Governer design. : RQ300/950PA1032-9

Governer no. : 0421801733

Cust. part No. : 0150745602

Customer-spec. information Customer : MB-NFZ

: 0M401 LA Motor

Power KW

: 230.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40

Tolerance °C

Overflow valve : 1417413025

Inlet press. bar : 1.5

Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110
Tolerance l/h : + 10.0

Test nozzle holde

: 1688901105 assembly

Opening pressure

208.5 bar

Tolerance bar

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter :

x Length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 5.25 Tolerance mm : +- 0.05

test only : \leftarrow 0.10

Rack travel in mm: 20.50 : +- 0.50 Tolerance mm

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : + 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rack travel in mm Tolerance mm		travel mm : 4.95 Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes	: 231.0	Rated speed rpm : 500 guide sleeve travel mm : 6.00
Tolerance cm3/1000 strokes	: + 1.0	Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: +- 4.0	Rated speed rpm : 1170 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
Spreed Tolerance cm3/1000 strokes	: 5.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 9.0	Rated speed rpm : 600
2nd speed rpm	: 300	Rack travel in mm: 20.00 Tolerance mm: + 0.80
Rack travel in mm Tolerance mm Del. quantity	: 5.20 : + 0.30	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes Tolerance		Rated speed rpm : 700 Del. quantity
cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : ← 6.0	+ cm3/1000 strokes : 231.0 + Tolerance
Spreed Tolerance		+ cm3/1000 strokes : + 1.0 + Check tolerance + cm3/1000s. : + 4.0
cm3/1000 strokes Check tolerance cm3/1000s.	: 6.0	+ Spreed + Tolerance
(1107 (10003)	. 10.0	+ cm3/1000 strokes : 5.0 + Check tolerance + cm3/1000s. : 9.0
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	+
GUIDE SLEEVE TRAVE		RATED SPEED
Rated speed rpm guide sleeve travel mm	: 300 : 2.19	control lever position degree : 95.0 tolerance degree : + 4.0
Tolerance mm	: + 0.10	rack travel mm : 11.90 Rated speed rpm : 998
Rated speed rpm guide sleeve travel mm	: 1004	Tolerance 1/min : + 8
Tolerance mm	: 6.36 : +- 0.10	rack travel mm : 4.00 Rated speed rpm : 1085 Tolerance 1/min : +- 15
Rated speed rpm guide sleeve travel mm	: 950	rack travel mm : 0.75
Tolerance mm	: 6.00 : + 0.10	+ Tolerance mm : + 0.75 + Rated speed rpm : 1300 +
Rated speed rpm	: 414 -	LOW IDLE

control lever position degree tolerance degree	: 70.0 : : +- 4.0	FUEL DELIVERY CHARACTERISTICS Rated speed rpm : 950
Testing:		Del. quantity cm3/1000 strokes : 229.0
Rated speed rpm	: 300 · 5.20	Tolerance cm3/1000 strokes : +- 2.0 Check tolerance
rack travel mm Tolerance mm		- cm3/1000S. : + 5.0 - Spreed
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 380	Tolerance + cm3/1000 strokes : 8.0
		Check tolerance cm3/1000s. : 12.0
Rated speed rpm		Rated speed rpm : 400
CRT mm min.	: > 7.50	Del. quantity cm3/1000 strokes : 158.0
TORQUE CONTROL		Tolerance cm3/1000 strokes : + 1.5 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.00	cm3/1000s. : +- 4.5
		Rated speed rpm : 500 Del. quantity
Rated speed rpm rack travel mm Tolerance mm	: 950 : 13.00	Del. quantity cm3/1000 strokes : 132.0 Tolerance
		+ cm3/1000 strokes : ← 1.0 + Check tolerance + cm3/1000S. : ← 4.0
Rated speed rpm rack travel mm Tolerance mm	: 400 : 11.55 : ← 0.10	+ cm3/1000S. : + 4.0 + Spreed + Tolerance
		cm3/1000 strokes : 8.0 Check tolerance
ANEROID/ALTITUDE COMPENSATOR TEST		cm3/1000s. : 12.0
SETTING		BREAKAWAY
Rated speed rpm rack travel mm	: 13.00	Rack travel in mm : 11.90 Rated speed rpm : 998
Tolerance mm	: +- 0.05	Tolerance 1/min : +- 8
MEASUREMENT	/00	
Rated speed rpm rack travel mm Tolerance mm		STARTING FUEL DELIVERY Rated speed rpm : 100
Rated speed rpm	: 400	+ Del. quantity + cm3/1000 strokes : 280.0
rack travel mm Tolerance mm	: 11.55 : + 0.10	+ Tolerance + cm3/1000 strokes : + 15.0 + Check tolerance
rack travel mm Tolerance mm	: 12.50 : + 0.10	cm3/1000s. : + 19.0
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Rated speed rpm rack travel mm Tolerance mm Del. quantity	:	+-	300 5.20 0.30
cm3/1000 strokes Tolerance	:		13.0
cm3/1000 strokes Check tolerance	:	+-	3.0
cm3/1000S.	:	+-	6.0
Spreed Tolerance			4.5
cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 30.05.94 Test oil : ISO 4113

Combination No. : 0402646980

Injection pump

Pump designation : PE6P120A320LS7846

EP type number : 0412626865

Governor

Governer design. : RQV300...950PA1033

Governer no. : 0421813990

Cust. part No. : 0150747502

Customer—spec. information Customer : MB-NFZ Motor : 0M401 LA Power KW : 230.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1417413025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Tolerance L/h : +- 10.0

Test nozzle holde

assembly : 1688901105

Opening pressure

bar : 208.5 Tolerance bar : +- 1.5

Lube oil : 1409918004

Test lines : 1680750075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : + 1.0

Prestroke mm : 5.25 Tolerance mm : + 0.05

test only : + 0.10

Rack travel in mm : 20.50 Tolerance mm : +- 0.50

Firing order : 6-3-5-2-4-

: 1-

Phasing : 0-60-120-180-240

: -300-360 Tolerance : + 0.30

Check

tolerance °NW : +- 0.75

BEGINNING OF DELIVERY DIFFERENCE

Time to cyl. no. : 6

BASIC SETTING

Rated speed rpm : 700

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Rack travel in mm : 13.00 Tolerance mm : + 0.05	Tolerance : 5.0 check tolerance cm3/1000s. : 9.0
Del. quantity cm3/1000 strokes : 231.0	
Tolerance	RATED SPEED
Check tolerance cm3/1000S. : + 4.0	tolerance degree : 120.0 tolerance degree : + 4.0
Spreed Tolerance cm3/1000 strokes : 5.0	rack travel mm : 12.00 Rated speed rpm : 995 Tolerance 1/min : +~ 5
Check tolerance cm3/1000s. : 9.0	rack travel mm : 4.00 Rated speed rpm : 1080 Tolerance 1/min : + 15
2nd speed rpm : 300 Rack travel in mm : 5.20 Tolerance mm : + 0.30 Del. quantity	rack travel mm : 0.75 Tolerance mm : + 0.75 Rated speed rpm : 1300
cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance	LOW IDLE
cm3/1000S. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 6.0	control lever position degree : 80.0 tolerance degree : + 4.0
Check tolerance cm3/1000S. : 10.0	Testing: Rated speed rpm : 300 rack travel mm : 5.20
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance mm : + 0.10 + Rated speed rpm : 200
	CRT mm min. : > 7.50
GUIDE SLEEVE POSITION Pated speed ppm 1044	CONTINUOUS-ACTION CONTROL
Rated speed rpm : 1066 Rack travel in mm : 11.90 Tolerance mm : +- 1.30	Rated speed rpm : 350
FULL LOAD DELIVERY AT FULL LOAD STOP	TORQUE CONTROL
Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 231.0	Rated speed rpm : 700 rack travel mm : 13.00 Tolerance mm : + 0.05
Tolerance cm3/1000 strokes : +- 1.0 Check tolerance	Rated speed rpm : 950 rack travel mm : 13.00 Tolerance mm : + 0.05
cm3/1000s. : +- 4.0 Spreed	Rated speed rpm : 400

rack travel mm Tolerance mm	: 11.55 : + 0.10	t Check tolerance cm3/1000s. : +- 4.5
ANEROID/ALTITUDE		- + Rated speed rpm : 500 + Del. quantity
COMPENSATOR TEST		+ cm3/1000 strokes : 132.0
SETTING		cm3/1000 strokes : + 1.0 Check tolerance
Rated speed rpm rack travel mm Tolerance mm	: 400 : 13.00 : ← 0.05	cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0 BREAKAWAY Rack travel in mm : 12.00 Rated speed rpm : 995 Tolerance 1/min : + 5 STARTING FUEL DELIVERY
Rated speed rpm rack travel mm	: 10.35	BREAKAWAY
Tolerance mm	: ← U.15	<u> </u>
Rated speed rpm	: 400	Rack travel in mm: 12.00 Rated speed rpm: 995
rack travel mm Tolerance mm	: 12.50 : + 0.10	Tolerance 1/min : + 5
rack travel mm Tolerance mm	: 11.55 : + 0.10	STARTING FUEL DELIVERY
START CUT-OUT		- Rated speed rpm : 100
START COT-OUT		Į
Rated speed rpm Check	: > 100	
speed 1/min Rated speed rpm	: > 80 : < 220	LOW IDLE
Check speed 1/min	: < 240	+ Rated speed rpm : 300 + rack travel mm : 5.20 + Tolerance mm : + 0.30
FUEL DELIVERY CHA	APACTERISTICS	-
		† Tolerance
Rated speed rpm Del. quantity		+ cm3/1000 strokes : + 3.0 + Check tolerance
cm3/1000 strokes Tolerance		+ cm3/1000S. : ← 6.0 + Spreed
cm3/1000 strokes Check tolerance		Tolerance : 6.0
Spreed	: ← 5.0	+ Check tolerance + cm3/1000S. : 10.0
Tolerance cm3/1000 strokes Check tolerance	: 8.0	Ŧ
cm3/1000s.	: 12.0	Ŧ
Rated speed rpm Del. quantity	: 400	<u> </u>
cm3/1000 strokes Tolerance	: 158.0	<u>†</u>
cm3/1000 strokes	: ← 1.5	Ŧ.
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